



THE AMERICAN

# School Board Journal

A PERIODICAL OF SCHOOL ADMINISTRATION

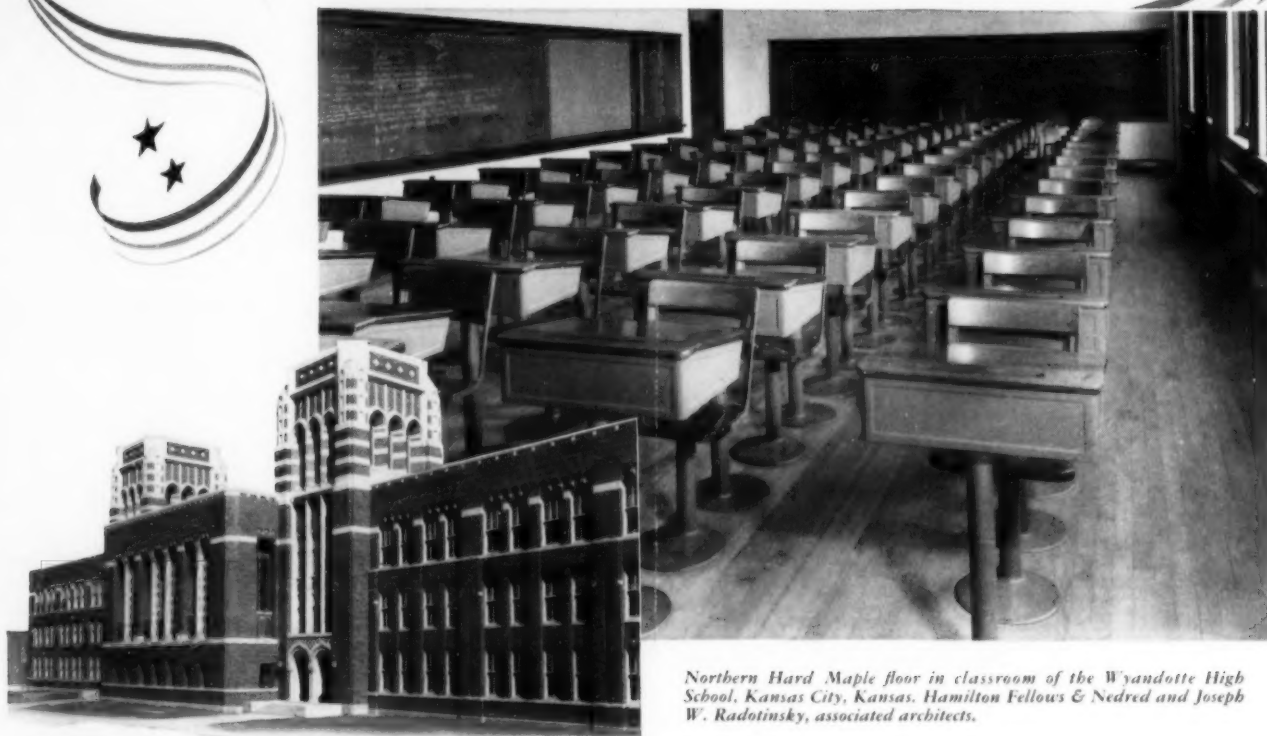
VOLUME 105, NUMBER 1

PERIODICAL ROOM  
GENERAL LIBRARY

JULY, 1942

★ ★ ★

## "Floor with Maple" twenty years back, meant bad news for the Axis **TODAY**



Northern Hard Maple floor in classroom of the Wyandotte High School, Kansas City, Kansas. Hamilton Fellows & Nedved and Joseph W. Radotinsky, associated architects.

Today, every material doing double-duty is helping to win the war. And WPB might well take a bow to men of the 1920's who "floored with Maple."

Because most of those Maple floors laid years ago, are still "doing duty" under 'round the clock service which, had they been inferior floors instead of Hard Maple, would require their replacement today, or before plant conversion, and perhaps with materials needed elsewhere.

Those men who specified Maple years ago, were serving their stockholders and *tax-payers*,

with long-lasting, safe, economical floors—and serving their employees and *children*, with comfort and sanitation underfoot. But by choosing wisely, they helped a war effort twenty years later.

And when today, you floor or re-floor with *Maple*, you too, are settling flooring problems for years to come, insuring daily satisfaction and economy, and avoiding the waste of premature replacement. Ask your architect about **MFMA** Northern Hard Maple, in strips or blocks. See Sweet's, Sec. 11/82, for catalog data.

**MAPLE FLOORING MANUFACTURERS ASSOCIATION**  
1780 McCormick Building, Chicago, Illinois

# Floor *with* **MFMA** Maple

REG. U.S. PAT. OFF.  
(N O R T H E R N H A R D)

# THE AMERICAN School Board Journal

Volume 105, No. 1

JULY, 1942

Subscription, \$3.00 the Year

## The Wartime Contributions of Industrial Arts in General Secondary Education

Charles S. Dewey<sup>1</sup>

The crisis of war forces the appraisal of every institution and activity of American life and obligates each to justify its contribution. The secondary school cannot and should not escape this critical examination. The industrial-arts program must in turn bear scrutiny: (1) as to its immediate and deferred values which should be retained because they are unique, and (2) as to the resources of the industrial-arts curriculum for greater wartime contributions by reorganization and expansion of its offerings to include more contacts with students and the community.

The industrial-arts program in general secondary education is always concerned with developmental experiences in the coordination of mental and manual activities. If such opportunities are valuable for all young people in peacetime, certainly they do not lose their merit during the war. Indeed a war economy brings with it renewed emphasis on the dignity of labor

and the practical importance of industrial efficiency, an emphasis so psychologically valuable that the administrator should make use of it in his public appeal for the extension of the high school courses, not only in vocational education but also in industrial-arts education for all students regardless of later vocational interests.

As in other aspects of our economy, however, danger is imminent that immediate and obvious war needs will bring pressures and resultant hasty decisions to befog our perspective. Neither the administrator nor the industrial-arts teacher can predict the world into which he will graduate, four years hence, the fourteen-year-old student in his school. Therefore both are compelled to evaluate carefully before eliminating, in an ill-considered war endeavor, what previously has been held constructive. The curtailment in the industrial-arts department may come from at least three sources: the loss of personnel, the lack of equipment and materials, and the greater emphasis on specific

vocational training in semiskilled and skilled occupations to the exclusion of industrial arts for the general student.

The problem of obtaining and holding shop teachers will become increasingly serious. If industrial-arts courses are justifiable, the administrator can take the stand that ceasing to teach such classes does not of itself mean that a man is doing greater service for his country. Directing youth into proper channels is also a wartime job; additional salary may be a small price to pay for our investment in boys and girls. Concessions should be made so as to keep at least some of the men who would otherwise teach vocational courses or enter industry.

### Wider Use of Available Facilities

The industrial-arts teacher must recognize that he will have to make many modifications in method and substitutions in equipment and materials as a result of war conditions; on the other hand, the administrator should see that the shop is



Airplane model making and auto mechanics not only have intense boys' interest but are directly valuable for guidance in the war effort. (Photos by courtesy of Dr. Louis Newkirk, Director of Industrial Arts, Chicago, Ill.)

not unnecessarily deprived. The shop plant can often be utilized to greater advantage. A more careful scheduling may dovetail the use of equipment for adult education, vocational education, and industrial-arts classes; the shop should be in use perhaps twelve or even sixteen hours per day. Industrial-arts classes, by expansion of their projects, can employ other parts of the school plant: the chemistry laboratory for research in substitute products, the art room for study of the material cultures of other nations, and the library for investigation of modern problems of industry. The community may provide industrial field trips. Such organization of industrial-arts courses will also permit greater use of personnel from other departments to assist in the teaching.

The industrial-arts shop is especially advantageous for the development of effective personal and social attitudes and the knowledge and skills which are desirable in the adequately prepared individual of any vocation. But fortunately, unlike vocational courses, the success of the industrial-arts work in the secondary school is largely dependent upon teaching method and not solely upon particular equipment and materials which may now be needed for actual war production. Regardless of the project upon which students may be working, there are many concomitant learnings: the willingness to cooperate, the discipline of remaining at a task, the appreciation of thoroughness, the respect for precision, and the resourcefulness always at a premium in wartime.

Shortages of materials may test not only the ingenuity of the teacher but may also assist the student to a greater appreciation of the experimental method. He may have to use less desirable material, analyze his problem more carefully, plan his work meticulously, and perform the required operations with greater application. Aesthetic pride in good workmanship need not diminish because of the medium with which the student works in the shop; there are excellent possibilities in an empty tin can or a discarded wooden crate. Perhaps the greatest re-evaluation which Americans must make as a part of war transitions is that cost is not the sole criterion of worth.

#### Broad Industrial-Arts Experience

After years of struggle to make somewhat clear the demarcation between industrial arts as general education and vocational-industrial education, those responsible for the former may find themselves on the defensive from the encroachments of laymen who cannot understand why the school shop is not doing more to prepare students to take their places in industry where they are so badly needed now. Before making any such transitions in the high school shop, the administrator and the industrial-arts teacher must remember that most of their students are sixteen years old and younger, and that many jobs which are plentiful under the



Printing has a fascination for the creative boy.

stress of war may not be available when these students are finally ready to take them. Moreover, the general values of industrial arts are such that they can be made particularly applicable to the training of every high school student now and in the postwar period.

How may the industrial-arts courses be reorganized so that, without great additional expense to the school, they may be



Carving develops an appreciation of design. (Photos on this page from Ottawa Hills High School, Grand Rapids, Michigan.)

valuable for every secondary schoolboy and for many of the girls? The following possibilities are certainly not exhaustive; they are merely indicative of modifications and expansions toward a more generally useful industrial-arts program:

1. The emphasis upon careful work habits of thinking, analysis, planning, application, and performance, always traits which the shop can inculcate, has the wartime sanction which dignifies labor with both head and hands. The school should not be slow in grasping such opportunity to make well-rounded individuals of many students who normally take only the college-preparatory course.

2. The socialized organization of industrial-arts classes provides projects in leadership and followership which are valuable in citizenship training.

3. The problems of industry loom tremendously important to every citizen in a total war and in a postwar reconstruction. The industrial-arts teacher is trained so that he can, with little material and equipment, direct field trips, research, and discussion on aspects of industrial organization, production, distribution, and employer-employee relationships. Such projects may be done in connection, for example, with courses in history and economics.

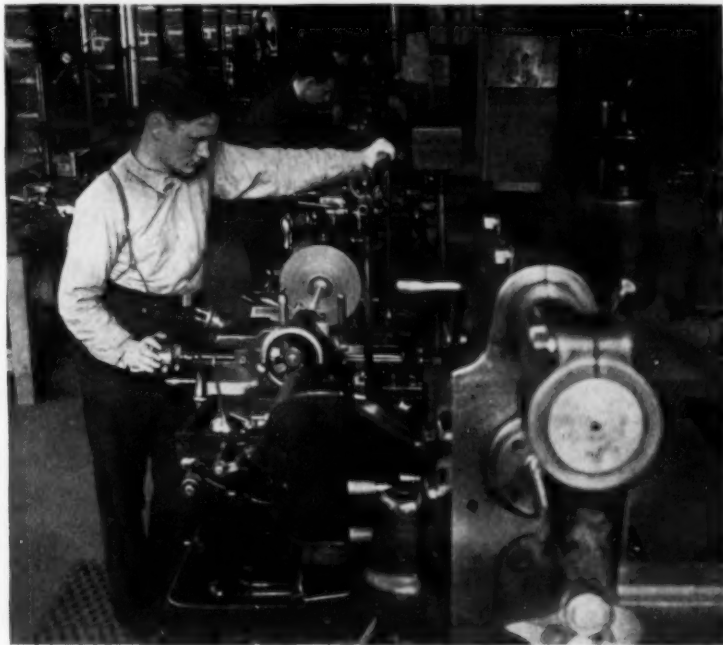
4. The exploratory and prevocational units in industrial arts require a minimum of material and equipment; nevertheless such classes may serve for efficiency in searching out students who should have early training in semiskilled and skilled vocations. They may also provide basic knowledge and skills for later vocational work, and they may give young students inspiration for college and the professions. The high school presents little other exploratory opportunity.

#### Safety and Consumer Values

5. Safety projects, always valuable, are now even more important because haste, lack of trained personnel, and old or poorly repaired equipment may in the home and community lead to many avoidable accidents which students can aid in eliminating provided they have been taught to recognize the dangers involved.

6. Consumer education has a legitimate place in general secondary training. Such information and skill are always a part of the curriculum of industrial arts on this level. With the decrease and even the elimination of many products for consumer use, care of equipment to prolong its usefulness, repairing of appliances which in normal times would be discarded, and judging substitutes for products no longer available are all important contributions not only to the individual and his family but also to the collective conservation of war materials.

7. The industrial-arts class becomes an excellent public-relations agency for bringing to parents methods of conservation of consumer goods. They will not only have additional contact with the school, but they



Metal working offers a wide range of activities which have both prevocational and trade values. (Photos: Left, Racine Public Schools; Right, Manitowac Public Schools.)

will also be more cognizant of their part in our crisis.

8. The war also means many separations in the home: the adult members work various shifts; the young people receive less guidance from busy parents; perhaps the father is in the armed forces. There will be increasingly less of consumers' goods of amusement but many leisure moments for constructive work. Adolescents have never needed more confidence in themselves. The school shops can provide inspiration for useful home activity which will also give emotional release, opportunities for support in family relationships, and feeling of greater security in an unstable environment.

9. Many of the ideals, intangible goals,

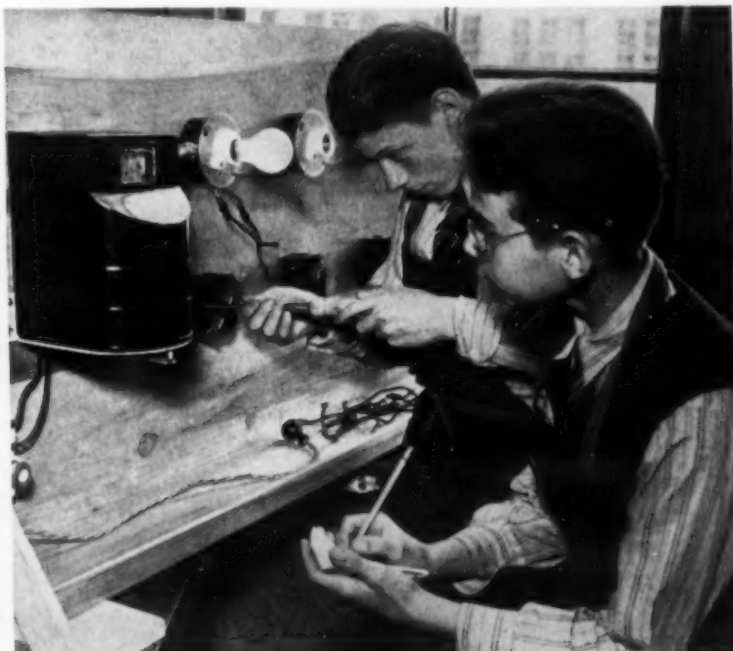
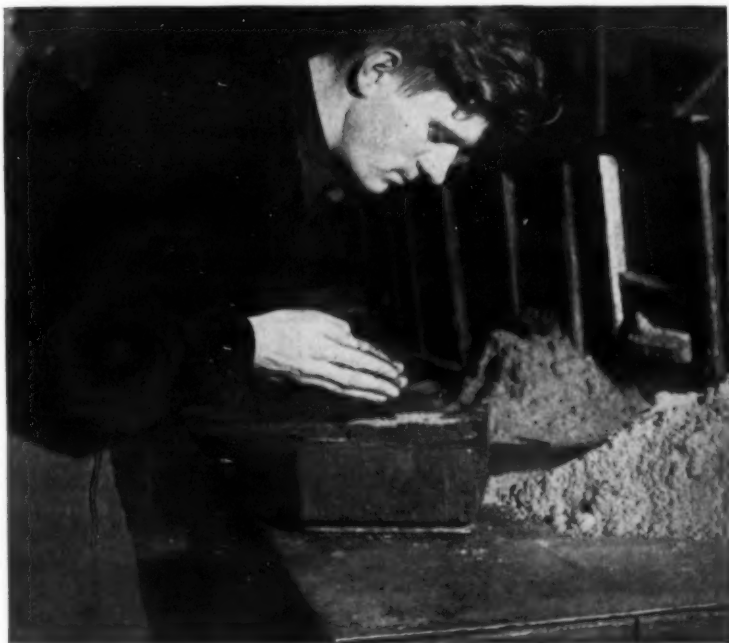
and abstractions for which adults realize that America is at war are not sufficiently concrete and immediate to be an inspiration for adolescents. The shop affords an excellent opportunity to translate such goals into activities of mental and manual co-ordination which will be not only helpful in the war effort but which will also give the student the feeling of doing an important part. The boys in some schools make model airplanes for the Navy Bureau of Aeronautics. Communities in some sections of the country have need of blackout facilities, splints, stretchers, and bomb and fire precautions. Victory gardens involve the care of tools; where students work on farms, the ability to handle machinery is an asset. Some classes have

made games and recreational equipment for army camps; others have projects for the salvaging of war materials. Under circumstances where labor unions and teaching personnel permit, industrial-arts classes may make assembly parts for industry.

#### Explore Community Resources

The list of such possibilities is extensive. The resourceful teacher will find many in his school and community. He must always use good judgment to insure that such projects are actually developmental activities for his students and not merely busy-work; he must also avoid duplication of effort by trying to do what government or industry can do more efficiently.

(Concluded on page 64)



High school shop work holds boys who cannot find themselves in academic studies.

# Keying the Schools to the War Emergency

Leonard A. Steger<sup>1</sup>

Our war with Japan burst upon the schools of America as a meteor out of the sky. It was a day of transcendent importance to all citizens in every city and crossroad of America. It marked a new low in the treachery of nations; but it gave impetus to a rising tide of resistance, valor, and courage which will spell victory for the freedom-loving peoples of the world. Pearl Harbor was not only felt keenly by the adult world; it has been lived and relived an untold number of times in reality and in the fanciful by the children of America. It is encouraging that youth should be concerned, because the outcome of this titanic struggle has supremely critical implications for them in the postwar world. For this reason boys and girls should share in the planning and activities necessary to achieve military victory and a lasting peace.

These times and the days immediately ahead are so important in determining the long view that men with boundless energy and dynamic minds are needed. Encouraging and directing the energy and intelligence of youth into constructive channels will help in the attainment of our immediate objective—*winning the war*—and will insure that needed statesmanship for the attainment of that more distant objective—*winning the peace*. With these aims in mind our schools can make a valuable contribution.

## Cooperative Planning

To organize the thoughts, feelings, and emotions of the children and adults of the city of Ames and to direct such a behavior pattern into educational channels was a challenging task which appeared very worth while to the staff of administrators of the Ames public schools. Meeting together immediately after the Pearl Harbor debacle this group agreed to center its thoughts around a four-point program which included safety, conservation, health, and morale. It was further agreed by this body that school pupils, school patrons, and the members of the teaching staff should be invited and encouraged to make suggestions which could be used for the purpose of developing a set of materials. The pamphlet which evolved was placed in the hands of the members of the faculty of the entire school system. It is entitled "Onward to Victory"—*A Handbook of Suggestions for the Schools During the War Period*.

The machinery for reaching the mental resources of the community followed a comparatively simple pattern. One line in reaching for ideas extended from principals to teachers to pupils; another from principals to teachers to pupils to parents; another from principals to patrons through

small group meetings; still another from principals to teachers to people in other communities particularly those closer to the coast and in England; while yet another avenue examined was the fund of current literature related to this particular problem. These ideas were pooled into committee reports which were edited into the handbook by the administrative staff.

## Safety and Conservation

While the protection of life and property during the war period is the major as well as the central responsibility of the thousands of Civilian Defense Councils of America, the schools must also assist in this very important task. While the dangers to life and property may be great in the highly industrial and coast areas, they are considerably less in the remaining vast expanse of this great country.

To be sure, the machinery for conducting air-raid drills, the selection of air-raid refuges, and the systematic planning for the preservation of life in certain disasters which may arise in this critical period, are a part of the plans of our schools at this time. While one phase of the Ames program is safety protection there are also other factors which are getting considerable attention.

Conservation of vital materials needed for the war effort is important during this period. Now we are provided with a splendid opportunity to teach boys and girls that we must slacken the pace of exploiting our natural resources so vividly pictured by Stuart Chase in *Rich Land, Poor Land*.

Since America has such a great part to play in food production, the education of consumers in the wise use of food demands attention in our schools. Selecting foods wisely, buying them carefully, and preserving them so they can be deliciously served all are of interest to school pupils. The actual production of food through the victory-garden plan is a project in which young people will express much interest because it provides a way of expression in terms of contribution to the war effort.

The careful use and preservation of clothing can also be stressed. Buying conservative clothes, taking exceptionally good care of them, and wearing articles of clothing for a longer period of time are matters which are not too small to merit attention.

Conservation of transportation, including automobiles, gasoline, and tires; utility services and products which conserve non-restorable resources and at the same time save consumer's wealth to be used to promote war activities; economical use of all types of school supplies and equipment; as well as a comprehensive program of

salvage—all comprise a long list of activities in which youth is interested and is willing to cooperate—to say nothing of war stamps and bonds which school pupils are buying at an ever increasing pace.

While conservation of food, clothing, materials, utility services, and numerous purchases of stamps and bonds are worthy ends in themselves, there is another phase which is receiving more stress in our schools during this time of emergency. I refer to the whole area of health and physical fitness.

## Health and Physical Fitness

The large number of men unable to pass physical examinations for admission into the armed services is appalling. It is convincing evidence that America must be more health and physical fitness minded. With the changed emphasis in education, "education for healthful living has become one of the main objectives of any school system." The school has assumed definite responsibility for the child's physical health, his mental growth, and his growing emotional stability. There is agreement on the philosophy of the health program in the schools. That philosophy is now being transformed into action in terms of a functional health program.

Our schools are patterning their program around six basic health areas defined by the American Association of School Administrators. Providing a healthful environment and a functioning health guidance program, presenting health information accurately, encouraging sound health habits and attitudes, providing a modified health program for exceptional (handicapped) children, and meeting emergency health conditions are challenges which our school health officials are accepting and are striving to administer effectively.

Physical fitness of the individual pupil in our schools is being encouraged through a more vital program of physical education. More intramural activities are being urged so that more pupils may be reached in this area. Such materials as "Every Iowa High School Boy Physically Fit for the National Emergency," and other local plans for physical education of boys and girls are being used by our teachers of physical education for the purpose of relating instructions closely in this field to the pupils' needs during this particular period.

Our handbook, "Onward to Victory," also treats the subject of civilian morale. In conclusion I wish to refer to it.

## Morale in Schools

Since morale has vastly different meanings to different individuals it is not easy

<sup>1</sup>Superintendent of Schools, Ames, Iowa.

to relate it to a program of instruction. Though it may be difficult to define it is imperative that we have it. Joy Elmer Morgan says: "It will do us no good to win the battle for democracy on a foreign field if we lose it at home. It will avail us naught if we win the battle for democracy with our factories, our navy, and our air force if we lose it in our schools. For in our schools are thirty million youth who are the tomorrow of America and the hope of democracy." Imbuing youth with high morale, in addition to being useful to them as men and citizens of today and tomorrow, also makes immediate contribu-

tions to a vast segment of our adult citizenry because every day the schools reach more than half the homes of America.

In our schools we believe that every activity should be a positive practice in democratic behavior. Our libraries should serve as centers for reading and recreation — as places where students can turn for a feeling of assurance, a knowledge of facts, and a source of unity and high purpose. Every subject field should make a definite contribution to civic education. In this all-out war period some of our curriculum offerings might well be dropped, emphasis on some fields changed, and new

material or even new subject fields should be introduced. Teachers should exemplify the calm, sane poise, and clear thinking in the analysis of problems which we hope to encourage in youth. Each day in every classroom of our schools some definite, constructive, and positive work must be accomplished if we are to build morale — the greatest weapon any nation can have in time of war. If we are successful in this, our youth and adults will be inspired with a determination to struggle for those permanent values which are necessary for the preservation of the American Way of Life.

## The School Board Changes Executives

Herbert B. Mulford, Esq.<sup>1</sup>

With the closing of the customary school year, over the country in the aggregate there are numerous changes in the personnel of school executives. Vacancies may occur for many personal reasons of the incumbents such as ambition to advance through change, forsaking education for some other vocation, tenure complications such as superannuation, or removal to another residence for family or other reasons. Then there may be action by the school board based on discovered incompetence, lack of educational development, arbitrary caprice or politics. Whatever the causes, the resulting problem of finding a new and proper successor is almost uniformly considered, by the profession as well as by interested lay people in the local community, to be one of the most difficult as well as important responsibilities of the board.

When a board adds to the faculty the problem is usually considered to be best solved by the recommendations of the trained executive, which normally the board upon reasonable inquiry may approve. When an administrator is to be chosen, it is quite a different problem, and the board is much less fortified with assistance. True, its members may go to placement directors of normal schools, teachers colleges, and universities or to private bureaus, both for lists of names of likely candidates and for information regarding them. And doubtless this information is an important factor in obtaining the services of a new administrator. Nevertheless, the responsibility is very great. In hundreds of cases boards are largely unprepared, either to understand the needs of the community educationally or to be able to translate them in such fashion as to judge intelligently of the qualifications of the large number of candidates they may voluntarily search out for interview, or of the possibly much greater number

attracted by the information that there is a vacancy. Irrespective of the causes for the vacancy, there has always been in the past a plentiful supply of applicants. Although war promises to make inroads on teaching staffs, as yet there seems to be no scarcity of those who seek administrative openings. And in the problem of making a good or bad selection lies much of the cause for the great lag of many a public school system behind the needs of its own community.

### Professional v. Lay Viewpoints

One of the principal difficulties of superintendent selection is the wide difference in points of view of citizen laymen and professional placement directors of teacher-training institutions and bureaus. As one goes over scores of application records of people trained in administrative theory and practice, one is impressed by the absence of data of the greatest importance for basing decisions. Repeatedly of recent years one has observed some very intelligent boards of fairly large school systems deliberately postponing the selection for a year or so in order that the search might be conducted on the basis of greatest selectivity. This in part has been caused by the fact that, in the opinion of many a board member, going to the institution which trains superintendents creates a vicious circle within the profession. Without in the least meaning to imply that a teacher-training institution cannot be wholly fair in making recommendations (indeed one has ample proof to the contrary), still there are those who think they have seen signs of professional nepotism sufficient to go it alone in throwing out the dragnet for applicants and making their own judgments.

When one relies on bureau or college records, one is supplied with reasonably complete details of past personal and professional history and a photograph, with pretty definite recommendations from both

teachers who did the training and previous or current employers, the latter specially in cases where the applicant is trying to better himself. But when, upon sifting recommendations and records, one confronts the large array of applications in procession, one still is left with insufficient background as a board member to make the choice as intelligently as the needs demand. Shall the new man come from a certain type of teacher college or from practical experience? Shall he be a "conservative" or a "progressive"? What does the community really wish, and does it know the causes for its own "hunches"? What should be his age? Will he fit into the community? Is his wife "acceptable"? Are there such political influences in the area that his life will be made miserable in the attempt to gain support for real progress in the schools? These are local community and board problems, and rarely if ever does the board get the positive and directional assistance where this problem is a dilemma.

There may be many determining factors almost outside the powers of the school board to control. These may involve inadequate compensation, inadequate financial ability and knowledge in the community pertaining thereto, narrow community views on its own community educational needs, disruptive influences from previous board administrations, largely political in nature, and previous serious shortcomings in in-training of board members to an adequate conception of their own duties to local childhood. Bases must be determined on some sort of policy in order not to have to do the job over again a few years hence. In altogether too many cases for progress in education is the selection made on rule-of-thumb choice because the greater educational overview does not prevail in school board or community, and to seek it outside the community often seems to flaunt community inabilities too publicly.

<sup>1</sup>Wilmette, Ill.

### Some Badly Needed Qualifications

After having explored this broad problem as it has affected scores of cases of selection, good, bad, and indifferent, it seems to the writer that there are a number of practical as well as almost intangible attributes which should be demanded of the man who intends to make school administration his lifework. These attributes may or may not have been stressed in his theoretical training or administrative experience, but they should be recognized, not only by those who teach administration, but also by those who perform placement service for boards and applicants. In order to emphasize a few of these which have come vividly into view recently, these qualifications may be stated negatively.

1. Insularity and individualism dwarf a school system, no matter how large or how small. We think we recognize this in the isolated rural districts, where articulation between elementary and regional high schools is none too good for the benefit of the child. That is essentially geographical and possibly cannot be avoided until greater reorganization of districts takes place. But reference here is to the failure to see a given district as part of the state and nation. With our great mobility of population, the effect of impoverished education anywhere along the line is a matter of concern for all. It may be a hard job for the administrator, but certainly something should be done about the viewpoint of the new school-board president in a highly affluent district contending that "the little red schoolhouse" is plenty good for current civilization and that the "three R's can suffice." The viewpoint of the administrator in this respect should be ascertained.

2. A second great fault is not conceiving the school system on an institutionalized basis. It has been axiomatic that a big business concern has not become an institution until it can absorb the best brains it helps to develop. It costs a great deal to permit frequent turnover of faculty members and other employees. A man has not reached full executive stature until he has a definite point of view on the significance of in-training, both for the development of the individual and for solidarity of the school system.

3. Akin to this is the inability of many an applicant to understand the significance of educational growth of the system and the community. One might take a leaf out of the experience of some of the great symphony orchestra leaders like Thomas and Damrosch, who began the vast development of musical America through providing the little accomplished early concertgoers with musical pap, and finally brought them into significant culture. The administrator should have a definite overview of educational trends in America and of their significance, and he should have more than a mere notion as to what he intends to do about this growth

and development in his own community, which doubtless is a generation behind the times in educational objectives and procedures.

### The Important Financial Problem

4. A grave handicap is placed on the administrator by his own training and outlook in respect to the financial support of the schools. The professional philosophy to a large degree takes responsibilities out of the hands of the board and places them with him. The constant struggle to bolster up his position by insisting that he frame the budgets, tell the board what is needed and guide the board in its decisions, is often abetted by the board philosophy, which on a negligent basis, assumes that it will supply brick, mortar, and money, and the administrator do the rest. These forces in numerous cases during the depression era conspired to disarm both board and superintendent as to the seriousness of the immediate financial outlook. School business in a fairly large system may be one of the biggest businesses of the community. It needs great business experience and sagacity to keep a board informed on future possibilities of inadequate financial support as it applies to local, county, and state taxation policies and actual operations. In those areas where heavy tax delinquencies occur to the grave detriment of the schools, the administrative applicant is inadequate for his calling if he does not demonstrate an understanding of such significant matters sufficient at least to direct his school board to adequate action for support.

5. This leads directly into the needs for the candidate to have a definite philosophy regarding his own relationship with the school board and the recognition of its great potentialities as the representative school government of the community. The candidate may have had sorry experience with some vicious board; he may have been unduly indoctrinated in a teachers college on professionally acquired theories which often are put to rout in actual and sane board experience. His weakness in this respect can be promptly detected by questions which will disclose whether he is being prompted by one of the numerous inadequate textbooks on the school board, or speaks from sound experience. The viewpoints which should be exposed are those on the in-training of board members, his recommendations of reading for new members, and the degree to which he realizes the breadth of the board members' shoulders in reference to most difficult matters in local public support of the schools. The candidate cannot in all cases be blamed for shortcomings in this respect, for by and large there is no one in the profession whom he will normally meet to give him training before experience in these matters. The gravest need of the whole profession today is a realistic treatment of the school board and its potentialities from the layman's point of view.

### What the Public May Expect

6. Not understanding the potentialities of well-co-ordinated and widely publicized policies of the school system is a cardinal shortcoming of any administrator. When he leaves the system after service, he leaves his successor an arduous task to ascertain what the community has expected of the schools and wherein, in the new man's judgment, the school has fallen below national norms or community needs and possibilities. If the applicant does not know what it means to reduce his own policies and those of a board to specific written form, the inquiring board may be sure there is a definite shortcoming on this level.

7. Possibly as important as anything is a precise understanding of public relations, both in policy and in ways and means. Only half the public are parents, but all may be taxpayers. The PTA groups may be largely transient and think more of their minor social and organizational recognition in the press than of the educational trends of community and nation. The negligent administrator does not build good will over the years, but is prone to let complainants "blow off and cool down," to let the schools sell themselves, and to meet emergencies only when they arise. The applicant who has some conception of the power of the local press and service organizations and indicates at least a determination to make use of any and all such devices for constantly building good will has a potentiality which probably has been based on a thorough understanding of all the shortcomings heretofore outlined.

There are professional doubting Thomases who may say that all this may not insure a good educator. True. That is the reason the problem of selecting a new and competent school executive takes on such significance and importance to the conscientious school-board member. What has been said here touches only the fringes of necessity. After sitting in at numerous examinations of candidates for both the master's and the doctor's degrees in education, one is positive that mere "book larnin" in this important field does not suffice.

Doubtless the numerous workshops of teachers colleges, the experimentation of the 30 secondary schools in the relationship with colleges and of the 34 townships over the country for a better understanding of teacher in-training, the slowly gathering movement for summer and regional conferences for school-board members, which in time may approximate a national movement for county institutes for school boards—all these are adding to better understanding between the lay owners and operators of the school systems and their professional associates. Possibly this is one reason why more should be heard from experienced school-board members in this most important of community, state, and national undertakings.

Ph  
the l  
will  
Be  
ingly  
mont  
uals  
icans  
prog  
scho  
years  
TH  
gram  
ginni  
throu  
phys  
Rece  
in th  
teach  
emph  
ment  
resul  
is a  
throu  
exer  
whol  
pow  
mari  
true  
the  
It  
skills  
phys  
ticip  
tion  
wher  
"Dir  
School

# The Cincinnati Schools Develop Physical Fitness W. K. Streit<sup>1</sup>

Physical fitness is a commodity high on the list of priorities. Without it, our nation will inevitably fail.

Because the nation has become increasingly aware of physical fitness in recent months and realizes the value as individuals of becoming and remaining hale Americans, it is necessary to build a continuous program from the beginning of elementary school life and extending through adult years.

Throughout the entire educational program of the Cincinnati public schools, beginning in the kindergarten and extending through the twelfth grade of high school, physical education is a required subject. Recently completed courses of study now in the hands of competent and enthusiastic teachers insure increasing and constant emphasis on the body building, developmental type of activity—the kind that results in better physical fitness. Exercise is a power builder. Power to do, comes through doing, and exercise—total body exercise—is the trigger which sets off a whole series of physiological powers. The power-building years are in youth, primarily from ages five to fifteen. This being true, it throws a heavy responsibility on the guidance of young children.

It is easily understood that the more skills a young child masters, the more physical activities he will be able to participate in with both benefit and satisfaction to himself. Skills are learned easily when children are young. And the simple

skills learned in the primary grades build the foundation for the more elaborate activities that are taught as the child goes through the grades.

Physical exercise, and a great deal of it, is not only advocated, but is absolutely essential as one of the necessary means of attaining a healthy development. The youth who exercises plentifully becomes tired and will rest better; he gets hungry and will eat more; he has more need for oxygen and breathes more deeply and more rapidly; he has more waste content to be carried from the cells and needs more nourishment for the cells. This causes increased circulation. Therefore, the instruction period in which boys and girls learn and develop neuromuscular skills, which can be used now, and in the future—that is highly important.

For exercise to be of value, the body must be free from infection as a basic principle of good health. Infections sap one's vitality. The body should also be properly nourished. For these reasons, in all schools, we stress the medical examination of children as a means of discovering physical defects and then induce parents to make corrections by consulting their family doctors or by visiting any of our city's many clinics. All schools also see that children are inspected each morning for signs of disease or other abnormalities. This is part of the health program which is so essential to normal growth and development.

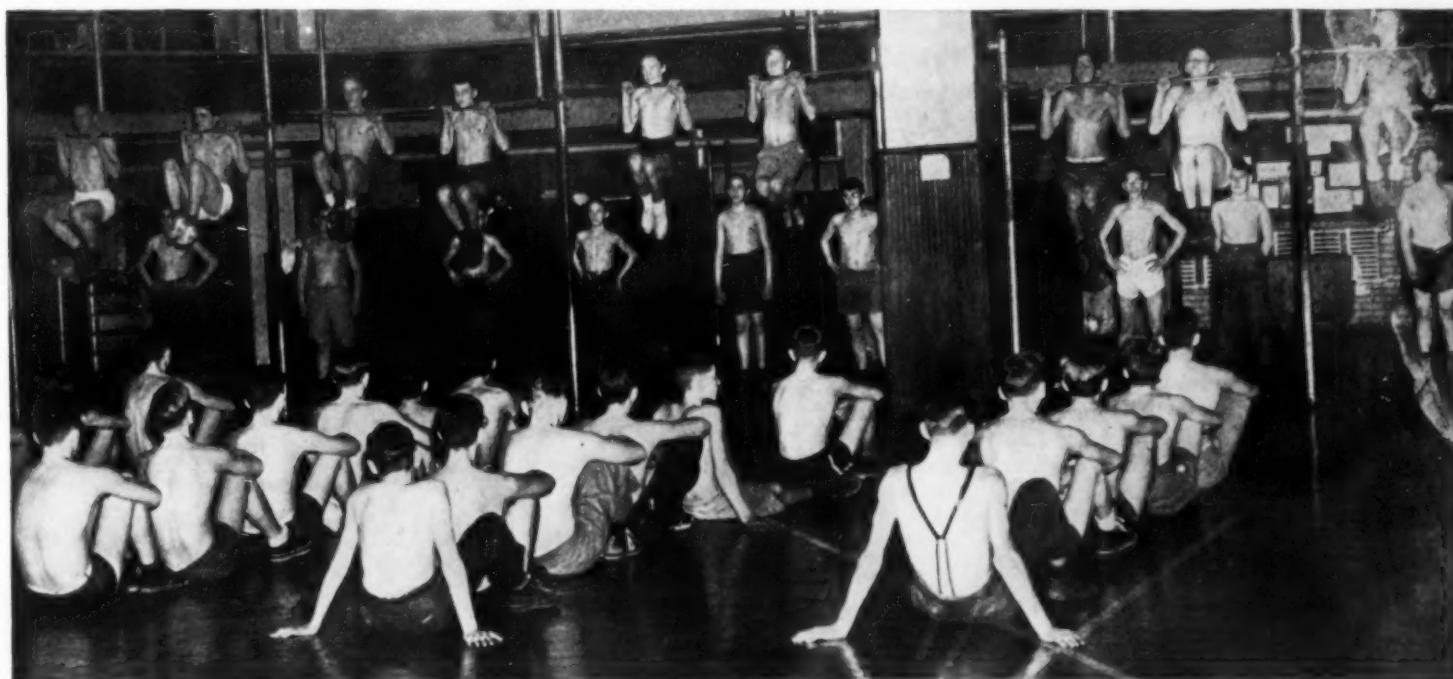
The findings of the draft boards show that there are many defects among men

of service age, and there is much value in the data derived from these examinations. Many of the proposals made for national "good health" are purely corrective and salvaging in character. But important as these are for those who are unfortunate enough to be defective, the greater need is for *prevention*. Therefore, existing programs of public health working along with the schools need to be expanded, there needs to be more emphasis on nutrition, mental health, industrial health, and perhaps the provision of some form of health insurance or state medicine.

We need to build a physical education program that in fifteen or twenty years will give us a new generation, a nation of people who, developed through vigorous outdoor life and guided by expert medical care, are interested in wholesome forms of physical activity and recreation. They point out that we must concern ourselves nationally with children of school age if the health, physique, endurance, and vitality of our people are to be insured.

Active physical sports and games help develop resourcefulness, physical vigor, agility, and stamina. Our Cincinnati youth learn these virtues upon the athletic field, in the gymnasium, swimming pools, summer camps, and playgrounds. Self-reliance, self-control, self-confidence, mental poise, integration of personality, all of these are indirect outcomes of a systematic program of physical education and athletics. They are valuable in ordinary times, but doubly important in these hours of national emergency.

<sup>1</sup>Director of Physical Education, Cincinnati Public Schools.



Boys in the Cincinnati high schools are developing power, muscle tone, discipline, and cooperation through apparatus activities which are part of the well balanced physical education program.



Building pyramids is great sport and is always enjoyed by boys. It helps build bodies as well as develop habits of cooperation and unity of purpose.

To perform their duties satisfactorily, men in our armed forces must possess great organic vigor, muscular and nervous strength, endurance, and fortitude. Consequently, in the physical education program we are intensifying our efforts to produce healthy, strong, vigorous individuals by giving attention to these things:

1. *Posture, Fundamental Skills, Strength, and Endurance*

a) Increase the amount of time devoted to apparatus work and conditioning exercises. This is borne out by the fact that a "Trainasium" consisting of a series of apparatus devices, recently invented by Dr. George T. Stafford (University of Illinois), is being used in army camps.

b) A thorough learning of fundamental skills takes time and points to an increase in time allotment. We must develop enough skill to play games well rather than to *play at them*.

c) Minimize all types of games but the most active and vigorous game activities during the physical-education class periods.

2. *Swimming*. Since much of our fighting will be done over, on, in, and under water, every boy and girl of elementary school age should learn to swim. Not only that, but learn to swim with clothes on.

3. *Intramural Athletics*. If athletics are good for the chosen few, they are also good for the many. We must expand our after-school athletic program for *all* boys and girls.

4. *Cycling, Hiking, and Camping*. These related activities are very valuable and merit the attention of school people.

5. *Healthful Living*. The four essential health habits of sleep, rest, nourishment, and joy need to be well-established and emphasized.

6. *First Aid*. Every boy and girl should have a thorough knowledge of first-aid procedures.

Every effort is being made to be sure that what we teach carries on and over into the out-of-school life of the individual, that our present facilities are used to the fullest extent, that physical defects are discovered and corrected, that we accent

implications for emotional and social health in sports and games, and that there are *daily* periods of instruction and participating in physical-education activities.

Military authorities have said that they prefer a sound program of physical education in the schools to any so-called form of military training. Intelligent and continued training under experienced leadership is the major element in the attainment of physical fitness. The youth of our schools should take every advantage of the experience of their physical-education in-

structors. Physical education is a process that requires time for the attainment of its ends, but its rewards are definite, tangible, and valuable. It is the right of every child to enjoy the opportunities of good health, social intercourse, and self-confidence through participation in physical activities. No department in our city's entire school system, no phase of the whole educational program is so strongly challenged to contribute to the basic potentiality of full and complete living, as is physical education.



Archery is a co-recreational sport learned in school and carried over for out of school enjoyment.

An  
have  
publi  
rules,  
board  
of th  
distr  
the b  
tween  
perin  
whole  
a pa  
publi  
is a  
Order  
of th  
ings  
publi  
regar  
of th  
defin  
and  
furth  
admi  
minis

A  
sort  
much  
sion  
by t  
istra  
insta  
more  
the p  
clud  
there  
ficial  
clari  
the p  
and  
varie  
been

O  
boar  
deal  
the  
cipa  
with  
swen  
cedu  
adop  
exist  
poss  
of t  
man  
to  
dec  
O  
a p  
buil  
rent  
letic

"Su  
paper  
Assoc  
Calif.

# The School Board Publishes Its Rules

Cecil D. Hardesty<sup>1</sup>

An increasing number of school districts have found it desirable in recent years to publish some document which includes rules, regulations, and procedures of the board of education. The scope and nature of these publications vary with individual districts. The working relationships among the board members, the relationships between the board of education and the superintendent, and the relationship of the whole organization to the community have a part in determining the nature of the publication. In some cases the document is a modified form of Roberts' Rules of Order and relates primarily to the rules of the board for the conduct of its meetings and business. In some instances the publication carries a detailed statement in regard to the responsibility and authority of the superintendent of schools, and a definition of his relationship to the board and to other employees of the district. A further statement in regard to division of administrative responsibilities among administrative assistants may be included.

A desirable trend in publications of this sort is represented in the condensing of much of the above material and the inclusion of policies that have been adopted by the board of education for the administration of the school system. In some instances administrative orders outlining more detailed procedures for carrying out the policies adopted by the board are included in the published document, and thereby given the status of having had official board sanction. That a real need for clarification of school procedures is met by the publication of board rules, regulations, and procedures is indicated by the wide variety of material of this sort which has been developed.

## Value as Timesaver

One of the chief values of a published board document is that it saves a great deal of time both for the school board and the school administration. School principals and teachers, by becoming familiar with the adopted policies, are able to answer knotty problems in terms of procedures and policies that have already been adopted by the board of education. The existence of approved policies makes it possible for the chief administrative officer of the board or his assistants to answer many problems that otherwise would have to go to the board of education for decisions.

One excellent illustration of this lies in a policy adopted for rental of school buildings. Such a policy should cover rentals for auditoriums, classrooms, athletic fields, and any other school facilities

for which there is a demand. Rental rates can be established so that they vary according to the size of the auditorium. A schedule setting one price for elementary auditoriums and another for junior high school or senior high school auditoriums may answer the need in a particular community. Occasionally the board of education may want to adopt two rental schedules, one involving situations where admission fees are charged, and the other where meetings are held with no admission charge. In California, rental rules must, of course, conform with the Civic Center Law, and provision should be made for parent-teacher associations and other groups connected with the school to use school facilities at the discretion of the school principal.

With an adequate rental policy it is possible for the school superintendent, or someone delegated by him, to handle practically all requests for building use in accordance with predetermined board policy. Occasionally a request will be presented where it appears that the charge should be waived or decreased because of some special circumstance. For example, a local service organization may have an annual benefit, the proceeds of which are used for child welfare purposes in the school district. Under these circumstances a board of education might want to waive the rental charge, and make only a nominal charge to cover janitor service and costs of heating and lighting. A district that has followed the practice of presenting each rental request before the board of education for specific approval will find a great deal of the meeting time saved by adoption of a rental policy with provision that a quarterly report be made by the superintendent of schools on the building usage authorized by him in accordance with the board policy.

## Reduces Board Action

A definite statement on rules, regulations, and procedures reduces the amount of official action that must be taken by the school board. For example, a policy prohibiting advertising material in the schools answers a continuous stream of questions as to whether or not a bazaar, bridge benefit, dance, etc., may be advertised through the schools without bothering the school board. In this and other types of situations, the explanation that a certain policy developed from the experience of a number of years has been determined by the school board as being in the best interests of the school will satisfy practically anyone who is disappointed in a request. The knowledge that all requests are answered in line with consistent policy reduces both the opportunity and the desire to criticize the schools.

*Settles Problems at the Source.* One of the maxims of good school administration is that problems should be settled at their source. Endless time can be involved in having a teacher ask the principal, who in turn asks the assistant superintendent, who in turn asks the superintendent, who in turn asks the board of education. Problems of such a nature that they recur frequently can be handled at their source in terms of a general policy without taking the time or attention of more than the teacher or principal who faces the problem. School patrons are better satisfied when they find the teacher or administrator first contacted authorized to handle the problem.

*Aid in Training New Employees.* An important value of a published statement on district policy is the help that it gives in training new district employees, particularly administrative officers. A principal or vice-principal who comes new to his job and receives a publication setting forth the rules, regulations, and procedures that have had board approval can, with a period of study of the publication, secure a definite basis for making decisions that will come to him. It will save time in contacting his superior officers, and, by giving him confidence in making his own decisions, it will enable him to develop the confidence and respect of those who work with him.

*Help New Board Members.* One of the problems faced by school administrators is that of orienting the new school-board member to the problems and practices in the school district. Here, as in the case of new employees in the district, the existence of published rules is of inestimable value.

*Legal Safeguard.* A presence of adopted rules, regulations, and procedures gives the school employee, the principal, or teacher, assurance. Problems frequently arise which involve questions of responsibility. Where the rules make the principal's or teacher's responsibility specific, he may proceed without wondering whether or not he would be held personally liable for any difficulty growing out of his work. Specific statements relative to responsibility gives the school district employees desirable protection in their work.

## Procedures in Establishing Rules, Regulations, and Procedures

What appears to be the major problem of the school administrator who would like to develop a publication on district policies is that of securing board approval of the policies. As a matter of fact, however, this hurdle can be negotiated by taking from board minutes of recent years all statements relative to policy, and presenting these to the board as a statement of the

<sup>1</sup>Superintendent of Schools, Montebello, Calif. This paper was presented at the convention of the California Association of Public School Business Officials, Coronado, Calif., April, 1942.

policies which the board has already adopted. Problems not covered in this original statement can be covered by adoption of new policies. Even in a school district in which the board operates on the basis of making a decision on problems as they come up, and makes no attempt at establishment of general policy, the individual board member and sometimes the board as a whole will say in specific situations, "This ought to be our policy," or, "Let's make it our policy." If the minutes are fairly complete, policies of this sort inevitably show up in a reading of the minutes over a period of four or five years. Even where the minutes record little of this type of thing, careful study of the minutes over a period of time will reveal that in many cases the specific actions represent a consistent policy. Where decisions have been consistent, it seems fair to make a general statement of policy based on reference to the several most recent decisions.

The person who accepts responsibility for pulling the board policies from the minutes will find it necessary to establish some means of referring a typist back to the material desired. In reading the minutes, clips may be put on the pages from which the material is to be taken, or the reader may simply list the page numbers of the minute book, or the dates of the meetings from which marked material must be taken. It is then necessary for the typist to type each action on a separate filing card. Cards can then be grouped so that related policies and actions are pulled together. Material can be edited and duplications dropped out.

**Prepare New Set of Regulations.** Where the local situation has the necessary personal working relationships, it is frequently practical to start a book of rules, regulations, and procedures by going about the problem directly, writing the regulations that seem necessary to cover the particular problems of the district. Once these have been developed by the school administration, they can be presented to the school board for reading, discussion, and adoption.

It is necessary to establish some organization system for the policies. They must ultimately be numbered, and a code system of numbering should be set up so that one who is familiar at all with the code system and the policy book will be able to find material quickly. One of the primary requisites of any system for organizing district policies is that the system should be flexible so that material may be added or deleted without making it necessary to renumber or reclassify all of the other policies.

One obvious method of organizing the policies is to follow the pattern established in the school budget, using the code system established in the accounting manual for numbering items.

An excellent organization may be worked out around the following headings: (1) Administration, (2) Personnel, (3) Pupils,

(4) Instruction, (5) Buildings, and (6) Equipment.

#### Adoption of New Policies

Where the school administration is alert to the needs of the district and has a good working relationship with the board of education, most new policies will originate with the staff. Occasionally these will grow out of discussion between the school board and school administration over the problems of the district. Certainly it is the responsibility of the school administration to develop the wording and general nature of the policies as the needs have been brought to their attention.

It is desirable for the policies of the district to include a rule that new policies will not be adopted by the board until they have been considered at two board meetings. Immediate problems that need to be met by the school board can always be met with a specific decision. Caution rather than haste should be observed in the adoption of any new policies and in the modification of existing policies. This is a precaution which does and should serve as a brake and as a protection to both the school board and the school administration. It means in the first place that the school administration cannot propose a policy at a meeting and have it adopted before its full implications are understood by the school board. At the same time, it prevents an overzealous board member from proposing a policy and having it approved before the administration has had opportunity to gather data on its effect.

That a hastily adopted policy may rebound on the one who proposes it is illustrated by the following incident: In a particular school district, no salary schedule existed for employees, although reasonable rates of pay and a fairly reasonable range of pay existed. Whether increments came or didn't, however, was dependent upon board action each year. A member of the school board desired one year to see a special salary increase given to one of the clerks, but wished to avoid any general raises. Knowing that his friend had been an employee a number of years, he proposed the policy that all employees in the district who had served the district a certain number of years should receive a special increase in salary. Proposed at a meeting without advance notice, the policy sounded good to another member of the board. The policy was forthwith adopted, published in the minutes, and announced in the newspapers. A checkup on the number of years of employment of all of the employees of the district showed that there were other employees in the district who had served the specified number of years and were thereby entitled to the special increment. The school-board member who proposed the policy had not been aware of this and was quite chagrined when one employee against whom he had a particular grudge, and for whom he would never have voted an increase in

salary, came in for an increase under the adopted policy.

Aside from mistakes that may be made in individual instances, such as the one just mentioned, a requirement that policies must be read in two separate board meetings before they are adopted as board policies serves as a stabilizer in those cases where a change in school-board membership may change a board majority. It gives opportunity for publicity to be given to proposed changes and decreases the probability of unwise action. As a matter of fact, the existence of published rules, regulations, and procedures has a wholesome effect on this problem.

#### Form of Rules

Printing of the board rules, regulations, and procedures seems to be desirable. This tends to increase the dignity and status of the board actions. Whether the material should be printed as a bound booklet, or whether it should be presented in loose-leaf form so that pages or sections may be changed without the necessity of re-printing the entire booklet, would depend upon the nature and scope of the publication. Where the publication is limited to a statement relative to the board organization and board procedures, printing in booklet form is probably desirable. On the other hand, if the publication is expanded somewhat so that it includes administrative policies as well as policies that have been approved specifically by the board of education, printing in loose-leaf form so that new sections may be added and necessary changes made would appear to be most economical procedure. In small districts, or in situations where cost of printing may seem prohibitive, the publication may be put out in duplicated form. The most important factor is that of organizing the board policies and getting them into definite published form. This gives them stability and gives opportunity to reap the values which can come from publication of these policies.

#### BROOKLINE'S WARTIME PROGRAM

In an effort to reduce school operating expenses, the board of education at Brookline, Mass., has directed Supt. Ernest R. Caverly to begin the preparation of a wartime operating program. The new program will seek to conserve budgetary funds in order to offset a certain drop in municipal revenue. Consideration will be given to the curtailment of evening classes, supervised play, and the operation of kindergarten classes. In some cases vacancies in teaching positions will remain unfilled.

#### RECOGNIZE GOOD TEACHERS

We shall be able to know good teachers when we meet them face to face. And we shall have them whenever in sincerity we wish to have them, when we give them a proper reward and due recognition. And far more important than monetary reward (important as I concede that that is) is the regard and esteem which they are entitled to receive. When splendid teachers are thought of as more important in an educational system than lofty buildings or athletic fields or equipment, then you will have them, and you will, through seeing, know them. — *Monroe E. Deutsch.*

# Aviation and School Physical Education

G. M. Gloss<sup>1</sup>

It will never be the same world! Aviation has whittled our globe into a much smaller sphere, making air power one of the potent material forces which will influence, in war and in peace, the present and future destiny of the human race. The generations in school deserve to be prepared to live in this "air-conditioned" world.

As specialists in education, we must find our place to serve.<sup>2</sup> This preliminary outline is made up of general and specific suggestions regarding the beginnings of an "air-conscious" training program of physical education for the elementary and secondary schools of the United States.

In addition to the in-school organized physical education program, both athletics and health education should receive a more extensive treatment. Extracurricular activities also deserve further development. This article is not complete. It consists of a tentative set of suggestions which should later be expanded.

Because of the present war needs, in this paper special emphasis will be placed on the requirements of a training program for fliers, flight physicians, flight nurses, hostesses, aerial photographers, parachutists, radio plane operators, and flying gunners. The more comprehensive problem of training aviation engineers, mechanics, and the like needed for com-

pleting the picture should also be considered.

Before any program of physical education can effectively augment a school program of aviation training, many other related general school activities also must be redirected to become more "air minded." For a fine article on this subject, see Robert Hinckley's "Fly for Your Lives."<sup>3</sup> Mr. Hinckley implies that our lack of attention to air power is, and will continue to be *costly*. Further, he states that the schools must awake to their necessary share in preparing for aviation needs.

## Suggested Program

The following actions might be a good beginning to start physical education programs on the way to becoming "air conditioned."<sup>4</sup>

1. (a) Compile a digest of all available materials and researches on the physiological effects of flying on aviators and physical needs of aviation workers. This might well include a study of the functions of actual flying, administrative duties, mechanical skills, and other occupational demands upon workers.

b) Gather, organize, and print this material in such form that additions to it may be made as new materials appear.

c) Distribute this material as rapidly and inexpensively as possible to all properly interested members of the educational profession.

2. Secure government funds to finance a committee of physical education experts to begin immediately a thorough job analysis of skills, abilities, and mental attitudes needed for fliers and aviation workers. These analyses should be made from firsthand observations. Add these findings to the previously distributed digest of materials mentioned above.

3. Formulate, after the job analysis has been made, immediate and future policies, recommend general practices, and set up definite programs for all school age levels. Distribute this material as another supplement to the others mentioned above.

4. Call in nationally known psychologists to give advice to the committee on (1) how to inculcate in the youth of America the ideal of keeping oneself fit for service to our country; (2) the way to get all people to accept the responsibility of keeping themselves at a maximum fitness level; and (3) how to publicize best the whole program of physical education. These suggestions are to be issued as another supplement to the original studies made.

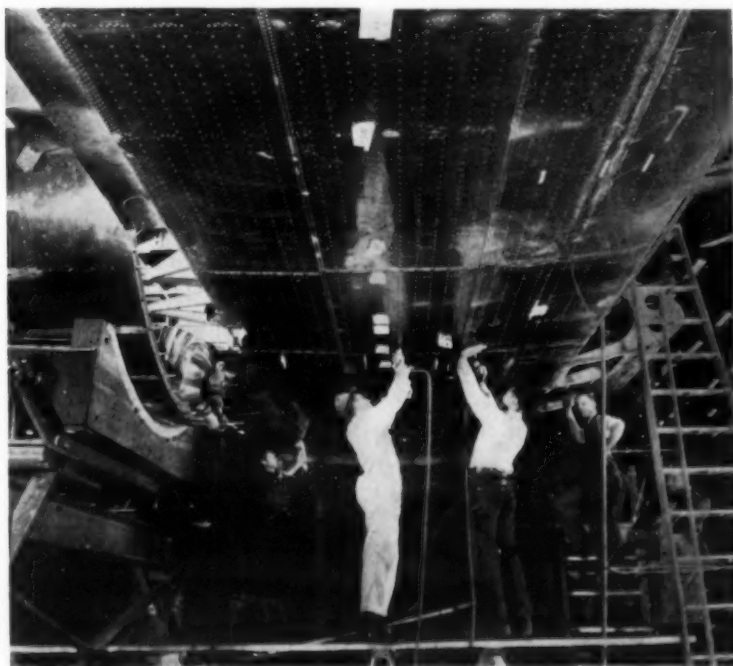
5. The committee should at this point discontinue their meetings and continue on as a national physical fitness advisory aviation committee. At this time a trained person should be appointed in the office of the national association of physical educators to act as an expert consultant on pertinent aviation aspects of physical education and health. He should gather all new materials as these come forth. These materials are to be distributed as rapidly as possible to all members of our profes-

<sup>1</sup>Louisiana State University.

<sup>2</sup>For a general introduction to the whole problem of aviation education in the schools, see Dr. N. L. Engelhardt's article, entitled "Aviation Education in American Schools," AMERICAN SCHOOL BOARD JOURNAL, May, 1942, pp. 17 ff.

<sup>3</sup>Collier's, Apr. 25, 1942, pp. 14 ff.

<sup>4</sup>See W. K. Streit, "The Schools and Physical Fitness," Journal of Health and Physical Education, Apr., 1942, p. 237.



Riveting the wings of a giant army transport plane or flying a commercial plane — both activities require health and strength. (Photographs: at left, Curtiss-Wright Corp.; at right, United Air Lines-Boeing Aeronautics School.)



Physical fitness is a first need of air hostesses. Coordination, balance, and skill are tested before an air pilot is trained. (Photos, American Airlines, Inc.)

sional organization. Some of this information could be secured from the armed forces, aviation publications, airplane factories, private and commercial air lines, model building clubs, glider clubs, flying clubs, aviation institutes, flight surgeons and physicians.

#### Legislation Suggested

6. State legislation to be enforced through the state departments of education should be enacted requiring health, physical education, and recreation training in college and in the service. These requirements should apply to graduation and certification of aviation workers.

7. In teacher-training institutions, start practical and useful aviation-minded physical education courses for physical education teachers, athletic coaches, camp directors, scoutmasters, group workers, doctors, general teachers, administrators, and the personnel of the armed forces.

8. Point out to schools and communities the recreational aspects of gliding and flying as part of guidance, classwork, assembly, and publicity programs. Motion pictures and other visual aids such as photographs, paintings, demonstrations, will also help a great deal.

9. Help to initiate or assist with out-of-school model building, flying, gliding, and parachute jumping clubs.

10. Organize clubs in hiking, out-of-door activities, and body building. Visits to plane factories, air fields, gliding areas, and aviation engineers could well be a part of the program.

11. See that every child has at least one enjoyable full sixty-minute period each school day of in-school curricular physical activity with an adequately trained leader in charge.<sup>5</sup>

12. Give credit for physical education

at all levels; require it for graduation and for high school and college entrance.

13. At regular intervals, administer comprehensive tests of health, fitness, physical ability, and athletic achievement. This should include items of:

- |                 |                        |
|-----------------|------------------------|
| a) Relaxation   | f) Posture             |
| b) Body control | g) Co-ordination       |
| c) Strength     | h) Speed               |
| d) Skill        | i) Balance             |
| e) Endurance    | j) Power explosiveness |

14. Post the test scores and the improvements made. The writer's *Physical Ability Test* might be used for this purpose.<sup>6</sup>

15. Assist the school physicians in detecting and then correcting (when they so prescribe) all possible remedial defects. This includes dietary deficiencies as well.

16. Emphasize those physical activities which produce a maximum of muscular efficiency and power reserve for every youth so that he may become a flier if possible, or may become more useful in any needed war effort.

This program would include considerable ground and trampoline<sup>7</sup> tumbling, work on the flying rings, activities on gymnasium apparatus, gymnastic dancing and swimming. In addition, there could be considerable practice on stall bars to increase chest flexibility.

This is to be supplemented by games, sports, and athletics; with special emphasis upon individual and dual games, plus exercises suitable for home use. It is also to be accompanied by a general explanation of total body efficiency, using visual aids, etc.

We should be seeking to make each student feel it absolutely essential that maintenance of the best physical condition is a personal affair, for which he alone is

finally responsible. This goal must also be made popular with the groups involved. All the psychological techniques of appealing to youths may be used.

This is only a suggestion regarding activities. Actually the program should not be devised until, as suggested earlier, a job analysis is made on the basis of all available research made thus far.<sup>8</sup>

#### Individual Health Guidance

17. Provide individual health guidance to help improve the physical fitness of each pupil. It is both a personal and a patriotic responsibility to keep oneself in excellent condition on one's own initiative at all times!

18. Start, if possible, in secondary schools gliding and flying contests in the intramural and the interscholastic program. On the elementary school levels have varied model plane and glider contests.

19. Create and use competitive sports of a new military type, using as bases, elements derived from techniques which are essential to the equipment of skilled aviation workers. These might well include (1) shooting, (2) hand and eye co-ordination, (3) assembling of planes, gliders, or guns, (4) maintenance of balances in aviation equilibrium testing machines, and (5) endurance and stability under conditions resembling the strain of speed flying under fire or at high altitudes. Performance on the Link Trainer might be an excellent device for securing competitive scores.

20. Create new types of contests involving flying and fighting skills. A good example might be a foot race consisting of the running of certain distances for speed, while carrying fighter equipment such as glider units or paratroops use when attacking.

<sup>5</sup>See H. K. Jones, "Report on National Fitness," *Journal of Health and Physical Education*, March, 1942, pp. 133 ff.

<sup>6</sup>G. M. Gloss, *Physical Ability Test*; New York University Bookstore, 1942.

<sup>7</sup>Charles S. Hatton, "The Trampoline for Sport," *Journal of Health and Physical Education*, Apr., 1942, pp. 252 ff.

<sup>8</sup>See M. D. Seil, "Physical Education for Fledgling Fliers," *Journal of Health and Physical Education*, May, 1942, pp. 288 ff.



Model flying provides a healthful outdoor activity. (Photo: Model Aircraft Magazine.)

21. Encourage our traditional ideas of individual and team sportsmanship. These are now to include a *decided emphasis upon the conception of personal service to country*. The end results will seek the production of a consciously cooperative, air-minded citizenry eager to see our country take its place as a world power in aviation.

22. Enlist a far larger number of pupils in a vigorous out-of-school athletic and varied play program.

This should be so organized that it would help each student to achieve a

maximum level of performance, enjoyment, ability, strength, and interest.

23. Give school credit for participation in athletics. Athletics are of educative value, and rightly deserve to be considered as part of the curriculum.

24. Keep ourselves in excellent physical condition at all times.

#### Conclusion

We in physical education, have a definite needed share in helping with aviation education. Now is the time, before it is too late.

Advances in aviation have made the world much smaller in time and space relationships. Planes have also given nations a powerful tool to use either constructively or destructively.

To win the war and the following peace requires that we become a major world power in the air. The time is opportune to demonstrate to the world the benefits of a democratic way of life. We must carry on the civilized ideals for which our forefathers fought. We, too, can be torchbearers to continue to light the way to life, liberty, and the pursuit of happiness.

## Essentials of a Basic Program for Improving Reading in Grades Seven and Eight—III

Dr. William H. Johnson\*

### 3. Reading Instruction in Grades Seven and Eight

An effective program of reading instruction in the seventh and eighth grades is no more than an effective teaching program. Whenever reading activities are carried on with a study attitude, definite instruction is required for attaining desired outcomes. Methods for improving the many varied abilities essential to school progress, therefore, must provide *guidance in reading different kinds of curriculum materials*. In this connection, guidance has two goals: (1) to develop the ability to discriminate among a wide range of purposes for reading, and (2) to show the pupil how to adjust his rate of reading to the requirements of a particular situation. Its aim is directed toward independence in reading performance which is the ability

to approach every reading situation with a conscious purpose, an appropriate attitude, and an adequate command of essential skills.

The objective of reading instruction in the upper grades lies over and above that of previous years. Although instruction in the middle grades may, and usually is, given in various types of reading abilities and skills, the chief emphasis is on "what the book says" or, rather, on a general comprehension of the subject matter. Not very much attempt is made to consider the content subordinate to or dependent on the *use* which the child is to make of the reading. Teaching procedures designed primarily to improve general reading ability may result in adding to a child's store of knowledge, but they contribute little to the development of appropriate study skills. If such methods are continued beyond the middle grades, all

that can be done, then, is to hope that somehow the pupil will learn, through much lesson reading, to make proper responses to the demands of any printed page.

In comparison with earlier years the reading of content materials in the upper grades exhibits a wider variety of purposes and demands a greater array of increasingly complex abilities and skills. If good readers are to be developed, they not only must possess a number of different abilities, but they must be able to make their skills serve a well-defined purpose. With this aim in mind, an effective reading program in the upper grades would organize its instruction around units of techniques, emphasizing the diversity of uses for reading and the multiple application of certain techniques. After sufficient practice has been given in recognizing when to apply these techniques, the

\*Superintendent, Chicago Public Schools.

same material should be read in different situations with other purposes in mind in order to develop suitable transfer or adjustment of reading habits and attitudes.

Ideally, the administration of the reading program would allow for the greatest possible degree of correlation in order to insure that the training which had been given by the English teacher would function in purposeful learning situations in other subjects. It is evident that more effective guidance can be given if the materials and purposes governing a pupil's learning activity in each classroom are made known to the reading teacher. Also, it is highly desirable that the materials used for practice in the reading period suggest appropriate, interesting, and purposeful activities to the pupil at his level of ability so that the specific skills being developed can be applied to his reading in other subjects. Every effort should be made to tie up the training and the materials of the practice period with similar reading situations encountered by him elsewhere in school. The reading teacher then becomes an adviser to the pupil at the same time that she confers with other teachers regarding the needs and abilities of that pupil.

Guidance is thus of utmost importance in solving reading problems. It is not possible to quarantine any language skill in any one department of the school and expect the pupil to transfer his training from one room to another as he changes his books. The activities of the reading period should be related not only to the study requirements of all subject fields, but pupils should be able to explain the reasons for their application of certain skills in specific situations. A textbook in basic reading instruction in the seventh and eighth grades becomes, in many respects, a handbook or guide to study. Attention of the pupil is called to principal types of reading difficulties; inventories are made by the pupil of many different occasions and purposes for reading in his everyday life, and finally, self-evaluation is fostered by means of appraisal tests and by the voluntary application of suitable reading skills to learning situations arising in all his school subjects.

Reading is first, last, and always, a matter of meanings. The establishment of a meaning vocabulary in any school subject, therefore, is the first requisite for improving reading abilities in that field. Formal drill on words out of context and the keeping of word lists with accompanying dictionary definitions has long since been discarded as an interpretation of vocabulary study in the broadest sense.<sup>12</sup> It should not be necessary to differentiate between a reading, hearing or speaking vocabulary. If a pupil really knows a word and all its meanings, he can identify, comprehend, and use it in any communicative medium. Strang puts this idea well by saying that "in order to apprehend a

word fully, it must become part of our experience by being pronounced, written, read, and used in a variety of contexts."<sup>13</sup> The test of whether a word is learned, ultimately, is its correct use.

Meaning vocabularies cannot be developed through wide reading alone. Direct study of words in situations highly motivated by the teacher is essential. In addition to demonstrating various methods of attacking unfamiliar words and arriving at their meanings, the teacher should explain difficult concepts and technical terms by relating them to the pupils' experiences. To teach the vocabulary of a given subject is to teach the subject itself.<sup>14</sup>

The outcomes of an effective program of reading instruction should be: (1) deeper educational interests on the part of pupils; (2) better and more economical reading habits; and (3) more independent readers and thinkers. In order to attain these general objectives, there are certain outstanding reading problems with which teachers should be concerned constantly. Although it is not always possible to eradicate the causes of poor reading ability, nevertheless, conditions such as the following require recognition, diagnosis, and treatment by every teacher:

1. Improper reading habits; excessive head movements, vocalization, narrow span of recognition, regressions, and inaccuracies in the recognition of familiar words.
2. Poor methods of attack on unfamiliar words.
3. Lack of attention or interest.
4. Poor comprehension: verbalism, slow rate.
5. Lack of discrimination in reading rates.
6. Ineffective study habits.

It would be impossible categorically to describe all the reading abilities which need improvement and refinement at the seventh- and eighth-grade levels, since one reading ability cannot be considered apart from others. They are not only complex in nature but they overlap one another in use. Some idea, however, can be obtained of the relationship between them in an analysis of several important abilities needed in work type reading as they apply to success in other areas of the language arts. (See Chart 1. The abilities on this chart are not all-inclusive.)

Variation in the kinds of material encountered in a certain subject provides, in part, the key to the specific reading abilities which should be developed and improved. Taking seventh-grade arithmetic as an example, it will be found that, although much of the content of textbooks in this subject deals with story problems, other types of material—number problems, construction activities, and explanations of concepts and processes occupy considerable space. Problem solving, an important ability in arithmetic, is not the only one required; the ability to follow

directions, such as may be given for using a compass or protractor, and the ability to interpret figures, drawings, and graphs are also important to success in this field.

One distinguishing feature of arithmetic reading, in addition to the use of nonverbal symbols, is the great number of concepts peculiar to the subject. Even though, by the adoption of several good methods of attack, a pupil may be able to recognize words occurring in his arithmetic lesson, and be able to attach some kind of meaning to them, the danger of misunderstanding still exists. Unlike other subjects where the results of a word inaccurately apprehended once in a while may not be so disastrous, arithmetic reading requires complete understanding. In fact, arithmetic may almost be called another language; at any rate, its mixture of symbols, abbreviations, and compact terminology necessitates slow and careful reading. All meanings must be correctly apprehended, for on that condition hinges the ability to arrive at the correct solution to problems.

There are two kinds of vocabulary encountered in arithmetic: One includes such technical words as *per cent*, *decimal*, *integer*, *ratio*, and *pi* which relate exclusively to arithmetical operations; the other contains words of multiple meaning which, although they may be within the common experience of pupils, take on different meanings when used in different contexts. Notice that in science the expression, *32 degrees Fahrenheit*, has one meaning; an *angle of 32 degrees* in arithmetic has another. Other contextual uses of the word *degree* might be found in various kinds of materials without the accompanying symbol ( $^{\circ}$ ).

Much problem solving of seventh- and eighth-grade pupils occurs in arithmetic. There are other study situations, however, in which problem solving with its array of specific reading abilities is often carried on. Training in the techniques of this process must stress activities in keeping with the individual's mental abilities. Seeing relationships of a complex nature and judging the relevancy of data in material that is beyond normal difficulty is to demand too much of any pupil. It is essential that the teacher of reading as well as the teachers of all the content subjects realize the points beyond which individual pupils cannot be expected to progress. Records of mental age and reading grade should be accessible to all teachers so that instruction may be individualized. The best way to improve the complex reading abilities such as are involved in problem solving is to provide material within the child's level of comprehension and then to give practice in the skills and techniques needed at each step.

It is not possible to delve very deeply into the problem of essential reading abilities and skills needed in the content fields without considering the relationship that proper mental adjustments bear to successful and efficient performance in the reading of each kind of subject material.

<sup>12</sup>Gray, W. S., *Development of Meaning Vocabularies in Reading*, p. 95.

<sup>13</sup>Strang, R., *Problems in the Improvement of Reading*, p. 75.

<sup>14</sup>Gray, W. S., *Reading and Pupil Development*, p. 179.

ing  
ility  
phs  
eld.  
etic  
rbal  
epts  
by  
s of  
nize  
son,  
ean-  
and-  
here  
pre-  
e so  
ires  
rith-  
lan-  
ools,  
logy  
All  
ded,  
y to  
ems.  
en-  
such  
in-  
vely  
con-  
ch,  
mon  
erent  
exts.  
32  
; an  
word  
inds  
ying  
  
and  
etic.  
ever,  
rray  
car-  
this  
eping  
See-  
and  
terial  
o de-  
essen-  
ell as  
jects  
idual  
gress.  
grade  
that  
The  
ading  
blem  
n the  
en to  
iques  
  
eeply  
abil-  
fields  
that  
suc-  
a the  
terial.

CHART 1. Analysis of Some General Abilities in Work Type Reading Showing Their Correlation With Basic Language Abilities

General Reading Abilities	More Specific Related Abilities	Language Abilities
Ability to understand what is read  Outcome: Better use of reading as a means of learning	1. to recognize and attach meanings to words in thought units  2. to distinguish between main and subordinate ideas in sentences and paragraphs  3. to associate meanings with previous experiences, either direct or indirect  4. to select and judge whether meanings relate to a predetermined purpose or problem  5. to rephrase meanings accurately by expression in thought or action  6. to determine author's purpose where it is necessary to complete comprehension	1. to transmit by speaking or writing words in thought units which convey meaning to others  2. to recognize and use correctly punctuation marks; to develop paragraph sense; to know sentence structure  3. to build a use vocabulary through experiencing, through wide reading, and through direct study of words  4. to give a report; to retell a story; to discuss a topic; to answer questions; to follow directions and to give directions (exposition)  5. to write and speak for different purposes when that purpose is not expressed, e.g., to persuade, etc.
Ability to locate information  Outcome: Economical and efficient methods of study.	1. to use mechanical aids in books and libraries; to do spot skimming  2. to do content skimming to find clues to information needed for a predetermined purpose or problem  3. to determine what information is needed; to determine key words and relevancy of ideas	1. to know how to use the library  2. to be able to compile bibliographies  3. to prepare material for and to keep files
Ability to organize information gained from reading  Outcome: Clarification of ideas and an aid to the retention of ideas	1. to make an outline  2. to take usable notes  3. to make a summary	1. to speak or write from an outline  2. to take notes on what is heard or observed  3. to frame titles and headlines; to prepare newspaper articles  4. to assemble material on a given topic
Ability to get meaning from materials in which ideas are transferred by means of other symbols (maps, charts, graphs, tables, signs, etc.)  Outcome: Better use of visual aids in study	1. to read timetables  2. to read maps  3. to read pictographs  4. to interpret cartoons  5. to read numbers  6. to read alphabetical symbols and abbreviations in arithmetic	1. to picture ideas graphically  2. to explain directions  3. to use figurative expressions correctly
Ability to solve problems through the reading of different content materials  Outcome: Increased progress in such subjects as: arithmetic, science, shop, social studies	1. to recognize the problem to be solved (to understand questions)  2. to find facts bearing on the problem  3. to understand directions  4. to draw conclusions  5. to test or evaluate the conclusions*	1. to ask questions  2. to take part in group discussions  3. to explain a process or to give directions

\*Too complex for many elementary pupils.

Knowing when to use certain reading techniques and skills is the most important habit to cultivate and investigations have shown that it is an outstanding characteristic of superior readers and students.<sup>15</sup> A conscious awareness should be developed on the part of the pupil of when to skim, when to read slowly and carefully, when to read rapidly, and when to vary these rates as, for example, rapid reading followed by careful rereading of parts ac-

<sup>15</sup>Strang, R., *op. cit.*, p. 63.

companied by mental review. Training in recognizing situations wherein these habits should be applied is just as much a part of a developmental reading program as providing practice in improving many specific abilities and skills, since possession of a great number of specific abilities in themselves is no guarantee that a pupil will obtain the greatest value from his reading by the most effective methods.

In conclusion, it must be pointed out that the successful administration of a

basic program of reading instruction requires that: (1) the essential characteristics of an effective reading program be recognized; (2) a study be made of the specific abilities needed in each content subject; and (3) teaching methods be directed to the development of correct reading habits.

No single answer can be given as to the amount of time which should be devoted to instruction of this kind nor the type of correlation which is most desirable. Schools differ in size and communities differ in needs, so that what would be a good plan of procedure in a large departmentalized school would not be suitable for a small rural one. Resources of the school and the community, however, should be completely utilized in every phase of the reading program. As a means of acquiring experiences and extending vocabularies, the movies, radio, and excursions are indispensable. Libraries should be greatly used; newspapers should be read; and, finally, activities of the community should figure prominently in the reading situations provided by the school. Rather than competing with reading, other forms of learning must be thought of as aiding and supplementing educational experiences.

#### NATIONAL ASSOCIATION OF SCHOOL BOARDS WILL MEET IN DENVER

The fifth annual meeting of the National Association of School Boards will be held July 2, in Denver, Colo. The headquarters will be in the Denver School Administration Building.

President Carl A. Widell will act as presiding officer.

A helpful and interesting program has been arranged with a fine group of speakers who will appear on the program. Dr. Willis A. Sutton, Atlanta, Ga., will talk on "The Place of the Schools in National Defense."

#### THE NATION FACES A SHORTAGE OF TEACHERS

Registrar Harry E. Elder of the Indiana State Teachers College, Terre Haute, has given warning that the Middle West and the Nation in general is facing the greatest shortage of teachers in history. He urged that steps be taken immediately to relieve the situation.

Mr. Elder offered five proposals for relieving the critical situation. He has advanced a suggestion that men engaged in teaching and those preparing to teach receive same consideration by selective service boards which is now given to physicians, dentists, chemists, machinists, and others.

The return of capable married teachers to the schools is advocated by Mr. Elder, who holds, too, that many married women are among the leading teachers, and that the prejudice against married women in certain communities must be laid aside for the duration of the war. Many retired teachers not too old might also return to duty for the duration.

#### EDUCATION AND THE COMING PEACE

We will have gained little by winning the war if the peace is but a truce, a breathing spell while we gird ourselves for another 20 or 30 years hence, or if the country suffers a complete economic collapse. Whether the world is saved and whether the country is saved for democratic ways of living and American standards of life depends, more than upon any other one thing, upon the degree to which the American voter of from five to twenty years hence has been educated to recognize sound proposals for international reorganization and for domestic reconstruction.—  
Harl R. Douglass.

# The Justification for Lower Unit Costs for Public Utilities Services to Public Schools

Charles L. Suffield<sup>1</sup>

Several years ago, a committee was appointed by the California Association of Public School Business Officials to investigate the possibility of reducing unit costs of the public utility service—electricity, gas, and water—to the public schools. In April, 1940, an article<sup>2</sup> summarizing the findings of the committee was published, in which an outline was given of some of the utilities problems of the schools. The article served to fix the attention of many school officials on the need for studying the operation of the public utilities in their local schools.

## General Problems

The problems for which the Utility Committee is seeking solutions are (1) what the attitude of the school should be toward the supervision and extension of publicly owned public utilities, (2) what the responsibility of the school is to the public utilities regulatory body, (3) how best to secure utilities services cost reductions under existing conditions and rate schedules, (4) whether the schools can justify demands for outright concessions, and (5) what, if any, concessions can be requested with propriety and justice.

Obviously lower unit costs for utilities services would save the schools money which might be (1) returned to the taxpayers, (2) expended for general educational objectives, or (3) used for larger consumption of much needed utilities services. The third method of expending the money saved should interest the utilities. This method would likely eventuate in even greater profits for the utilities companies.

**General Solutions.** There seems to be at least three general methods by which utilities services unit costs may be reduced: (1) by working with the utilities regulatory body for general reductions for the city or state; (2) by taking every opportunity for reducing costs permitted under the framework of the existing rate schedules; (3) by securing outright concessions from the public utilities, such as flat rates, combined meter readings, percentage reductions in bills or rates, and by promotional rates of various kinds. In the case of municipally owned utilities lump-sum amounts might appropriately be paid to the schools by the cities in lieu of taxes.

## Attitude of the School to the Supervision and Extension of Publicly Owned Public Utilities

This problem was discussed rather fully in the writer's article on utilities in April, 1940. The Committee's present attitude is that both the publicly and the privately owned utilities should be examined critically and continuously. The publicly owned utilities should be supervised as carefully as those privately owned. In these days all American institutions are being tried in the balance. If a privately owned utility company has a corporate structure which prevents it from providing good services reasonably, it will have to be replaced by some other institution. If the publicly owned utility, on the other hand, becomes corrupt and inefficient, the experience of the public with this faulty institution will serve to prevent the extension of publicly owned utilities. Ex-President Hoover has stated: "If we have not the capacity as a nation to regulate these great tools (public utilities) in the public interest, we much less possess the capacity to operate them on behalf of the Federal Government."

Table I contains excerpts from a recent questionnaire. It may be observed in this table that the unit cost for electric lighting in the elementary schools of Los Angeles is higher than for San Francisco. The Los Angeles schools lose approximately a million and a half dollars annually in taxes because of municipal ownership of light and water facilities. The electric utilities in San Francisco are owned by a private corporation and are taxed accordingly. The public schools have reason to be especially critical of the supervision and extension of publicly owned utilities.

## Responsibility of the School to the Public Utilities Regulatory Body

In California, general state-wide reductions in utilities costs, in which the schools are beneficiaries, are ordered by the state's utilities regulatory body. This commission must have the support of all civic organizations if it is to serve honestly and efficiently. It is generally recognized that the utilities companies normally resist the lowering of utilities rates. Last year studies were made on many of the utilities operating in California, and as a result sizable rate reductions were made and passed on to the general public, in which the schools participated fully. These amounted as follows: Gas, \$1,060,614; Electricity, \$1,665,979. For the years 1936 to 1941 inclusive the total reductions were: Gas, \$14,848,749; Electricity, \$18,243,799—a total for the two utilities of over \$33,000,000. California utilities rates are now among the lowest in the nation. The Railroad Commission also re-

quested the utilities companies to make a special survey of school properties to determine if the schools were purchasing utilities services at the most advantageous rates under the rate schedules. A number of schools received utilities cost reductions as a result of the survey.

When the Utilities Committee was first appointed, a staff member of the California Railroad Commission stated that he had never seen a schoolman at a rate hearing. This condition has been remedied in California. The writer has seen over 10 school district representatives at such a hearing. School officials should encourage the regulatory body to continue the reductions of utilities services costs by attending rate hearings and by assisting in securing sufficient appropriations for the Commission so that it can operate successfully.

## How to Secure Utilities Services Cost Reductions Under Existing Conditions and Rate Schedules

**Mechanical Alterations.** The most direct method of securing utilities unit-cost reductions for the schools is to make technical, or mechanical, alterations in the school plants, such as repiping and rewiring for the elimination of surplus meters. At the present time, of course, it is difficult to secure priorities for pipe and wire. Surplus meters add greatly to the unit costs of utilities services because of "block billing." The California schools that have the lowest electric energy costs, as shown in Table I, have eliminated surplus meters. Some of these schools have installed "primary metering."

School officials should be alert to the desirability of installing "Demand" meters when conditions indicate that such an installation will save the district money.

As stated previously, many California schools have substituted oil for gas in space heating. After installations have been made for oil, the gas companies have frequently offered "stand-by" rates as inducements for the use of gas. "Stand-by" rates are sometimes one half of the regular rates.

Many California schools secure their water supply from their own water wells. More schools would find this a profitable course.

Some schools have considered the possibility of generating their own electric energy. Such plans will likely have to await the conclusion of the war.

**Proper Economies.** Carl G. Caddy, business manager of the Tacoma public schools, reported to his board that the Tacoma schools had averaged \$3,000 annually in savings on water bills without any reductions in rates. Some of the savings were made through technical changes in the school plants, such as eliminating meters and reducing the sizes

<sup>1</sup>The writer of this paper is Assistant Superintendent of Schools in charge of Business Affairs at San Bernardino, Calif. Since 1939 he has been chairman of the Utility Service Committee of the Public School Business Officials' Association of California, and has interested himself in securing for the public schools utility service rates favorable to the public schools and fair to the utility service corporations.

The present paper is based on a report of the Utility Service Committee made by Mr. Suffield at the meeting of the Association, April 12, 1942.

<sup>2</sup>Public Utility Service Costs to the Schools, AMERICAN SCHOOL BOARD JOURNAL, Vol. 100, No. 4, p. 52, April, 1940.

of some water meters. However, considerable savings were made by eliminating the waste of water. Water was saved in the operation of the automatic urinal flush tanks by shutting these off promptly after the close of each school day. Overflow water from the drinking fountains was diverted to the urinal flush tanks. Water-saving shower heads were installed. Daily observations of water meters, when the schools were not using water, were made to detect leakages. A homemade "leak detector" was used to locate leaks detected from observation of the water meters.

**Unit Cost Accounting.** So much discussion occurs concerning utilities rates that it is sometimes forgotten that it is the unit cost not the unit rate that is the more important consideration. The questionnaire, circulated in California, called for the *Average Cost* per kwh. for the calendar year of 1941. The average cost of any utility service is calculated by dividing the total amount paid for the service during the selected period by the total units of the utility service consumed. Such a measure takes into consideration the conditions of the school plant in regard to surplus meters and other disadvantageous factors. One excellent business manager, who already had secured for his school one of the lowest unit costs for electric energy in the state, announced that the data secured in answering the questionnaire had made it possible for him to secure additional reductions.

**System-Wide and State-Wide Unit Cost Criteria.** Regular examinations of the utilities unit costs within the local school system will reveal places where economies or technical alterations should be made to reduce costs. The California questionnaire tabulations on utilities costs provide state-wide criteria.

**Utilities Handbook.** Seldom is there a school business official who has received technical training in utilities management. Consequently he develops an inferiority complex when he discusses utilities costs with a utilities company representative. It is the belief of the Utilities Committee that a Handbook would assist the nontechnically trained school business official and his clerical staff very much in securing utilities unit cost reductions. A staff member of the state railroad commission once told me that he believed he could make a good living by contracting to make savings to school districts in utilities service costs with the proviso that he receive as compensation a small commission on savings effected. The handbook proposed would contain a glossary of utility terms, information as to the calculation of service costs on selected rate schedules, explanations and charts as guides to meter reading, and methods of securing utilities cost reductions and economies. The committee has begun the preparation of such a utilities handbook.

#### The Case for Utilities Cost Concessions to the Public Schools

The schools have contributed greatly to the increased consumption of utilities services. As Atlanta's Superintendent Sutton humorously and adroitly points out, it takes an

educated lady customer to purchase a "dress ensemble." In the same way the public has to be educated in order to enjoy the full advantages that may be secured from the consumption of utilities services. Undoubtedly the school has done more to increase the intelligent consumption of utilities services than all other agencies combined.

**How Schools Promote Utilities Consumption.** The utilities companies have not been unmindful of the schools' contribution even though the partnership has been unilateral in its benefits. The utilities companies know that the schools influence future utilities consumers and consequently make every attempt to exploit the educational possibilities of the schools. Electric and gas ranges are placed in the homemaking classes because it is well known that the girl who uses one in the classroom will demand one for her home. When a new auditorium is added to a school the electric companies urge the school administration to install the most modern stage lighting for the educational effect it will have upon the pupils.

Small unit-control power machines are being purchased for home use because many boys have learned to operate similar machines in the vocational classes of the high schools. The future farmers, when still in school, have been informed how to use utilities services most advantageously on the farms and are even now purchasing utilities services under special agricultural rates. Instruction has been given in schools concerning desirable candle power for home and store lighting. Refrigerators, irons, sewing machines, fans, and many other electric conveniences have been demonstrated and explained by teachers. The illustrations could be multiplied. The standard of living of the nation has been raised by the schools with the consequent improvement of "business." Yet with all of the promotional work that the schools have done specifically for utilities companies, their reward has been to be classified as commercial consumers who must pay the highest rates. Splendid as has been the schools' contribution to the development of utilities services consumption, the schools could have made even greater contributions had they been given desirable concessions by the utilities companies.

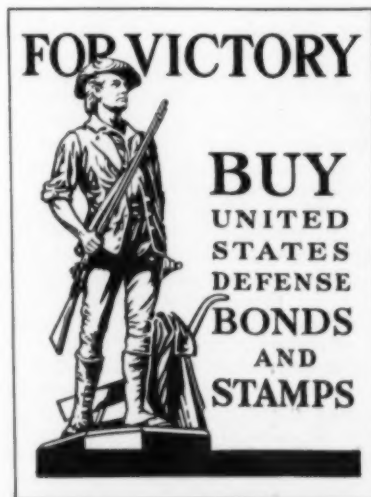
**The Schools Need Additional Utilities Services.** Recent California school surveys indicate that many schoolrooms all over the state are inadequately lighted. If schools were given electric energy at a price that they could better afford, the schools would demonstrate daily to thousands of school children the value and the necessity of adequate artificial illumination. By not rewarding the schools more frequently with concessional rates the utilities companies have shortsightedly injured their own cause as well as the eyesight of many children.

**The Schools Should Be Reclassified.** Traditionally the schools have been classified as "commercial" consumers. In a few locations in the United States this is a desirable classification, but for the most part this schedule is inferior to the "domestic" as well as other schedules. In California, for example, a customer of the Pacific Gas & Electric Co., in 1940, would pay the sum of \$38.78 per month on the "domestic" schedule and \$74.15 per month on the "commercial" schedule, for 3000 kwhs. of electric energy.

One might inquire why one customer *should* pay more per unit for the same electric energy in a case where the cost of production and distribution is the same for each customer. The answer to this inquiry would be a long one and would go back several decades. It would be the story of "block billing," "promotional rates," and discriminatory classification of customers. These methods were originated by the utilities companies for the purpose of enlarging their systems and their profits. By these instruments the utilities services which the customer *must* buy are sold at the highest unit costs that the traffic will bear, while the services for which the customer can find suitable *substitutes* or can *do without* conveniently are sold at much lower rates — also at the rates that the traffic will bear. The schools have been classified as commercial consumers and charged what the utilities companies *thought* the traffic would bear. We are expected to believe that rate making is scientific. Rate making is scientific to the extent that it is a carefully calculated attempt to coax from the public every dollar possible for utilities consumption. In all fairness, however, it can be said that the policy of the companies in discriminating between customers and within rate schedules has served to lower the unit costs of producing and distributing utilities services — up to the present time at least. It is unfortunate that the schools have been singled out to be mistakenly classified with the customers who must help to pay the costs for the marginal or apathetic customers — unfortunate for the schools, the public utilities companies, and the public at large.

The Utilities Committee has taken the position that the utilities should make substantial concessions to the schools because this would thus enable the schools to further promote the intelligent consumption of utilities services. This would lower the unit costs for all customers and would therefore be "good business" for all.

**The Schools Are Desirable Customers.** The Utilities Committee has taken the position



also that in all *justice* the schools should be given a more advantageous classification for utilities consumption.

### Elementary Schools Consumption

At the 1942 Coronado Convention of the Association the following arguments were advanced as to why the elementary schools should receive the domestic rate or better:

1. The typical elementary school is located in the center of a residential area in which the customers receive the domestic rate.

2. Most of the primary utilities equipment would have to be provided in the areas for the domestic consumers even if no school were located in the area.

3. The electric energy is purchased "off the peak" of the evening hours heavy consumption.

4. The schools are not in session during the summer agricultural "dry-years' peak."

5. The summer vacation periods of the schools are no more disadvantageous to the utilities companies' revenues than the summer vacation periods of the residents of the school community, if percentage of occupancy of houses is also calculated and considered.

6. Finally, the schools are persistent, non-fault-finding customers of excellent credit standing.

### High Schools as Consumers

For the most part the high schools of California are located in populous areas in which customers are concentrated. It is well recognized that such populous areas help carry the costs for less concentrated areas. This fact is partly borne out by the favorable records made by some municipalities which purchase utilities services for resale. These municipalities skim the cream and leave to private utilities companies the development of the sparser and less profitable areas. Such cities buy from the private utilities companies at favorable rates because the companies realize that these cities will produce their own utilities services if these services are not sold to them by the companies. However, the utilities companies realize profits on their sales to cities. The schools have not attempted to create a buyers' market for themselves by such competitive threats and should not be forced into such actions. The secondary schools are desirable customers and should receive voluntarily as favorable treatment as the municipalities and domestic consumers.

### Justification for Outright Concessions to Schools

The theory of utilities regulation is that the companies are permitted to earn a predetermined interest rate on their investments. According to theory if one customer pays more than his share another customer will needs pay less. In the Committee's opinion the schools have been paying more than their share of the costs of production and distribution of utilities services. The schools have been placed in a higher consumption cost classification than justified and have been unduly penalized for their excess meters. The schools are clearly entitled to outright concessions.

If the schools are granted concessions, either the utilities companies or other consumers will have to assume the burden of

TABLE I. Comparison of Selected California Schools Electric Lighting Costs Shown in Questionnaire

School System	ELEMENTARY		SECONDARY		Utility Ownership
	Total KWHs	Average Cost per KWH	Total KWHs	Average Cost per KWH	
Los Angeles.....	1,945,067	.02753	5,164,097	.01765	Public
San Francisco.....	2,359,616	.02106	365,445	.0243	Private
El Centro.....	11,455	.01	5,848	.01	Public
Fullerton.....			768,000	.01364	Private
Modesto.....	159,623	.01584	555,712	.01471	Public
Bakersfield.....	297,250	.02536	1,155,430	.01722	Private
Inglewood.....	35,933	.04	402,400	.0175	Private
Alhambra.....	130,109	.0339	614,290	.0186	Private
Pasadena.....	162,379	.02708	176,475	.02180	Public

the decreased revenues from the schools. If these concessions are applied when rates are being revised up or down, the regulatory commission can see to it that the companies will still earn the predetermined interest rate on their investments. The companies can't lose — according to theory. The burden would then have to be assumed by other consumers. These other consumers would not lose finally since the schools could then promote greater consumption of utilities services with subsequent reductions in unit costs to all consumers. However, even if this last stated fact were ignored, the time is at hand when the favored consumer should assume a greater share of his costs of utilities service. At least the amounts by which the schools have been overcharged should be assumed by the favored customers. In the final outcome, the utilities, the schools, and the public would benefit if outright concessions were granted to public schools.

### The Nature of Utilities Concessions to Schools

At the present time a number of larger cities of northern California are receiving *flat rates* for electric energy consumption. It is customary, rather generally, for water and gas companies to permit "consolidation of meter readings." One school district, only, in California receives "consolidation of meter readings" for electricity. (Other conditions in this city liquidate the advantages of this

concession.) The Committee has favored *percentage reductions* of utilities bills because this plan still leaves an incentive for the schools to operate their consumption of utilities services efficiently.

### Action Is Required

In California the regulatory act for public utilities was so written that the schools probably will continue to be classified as commercial consumers indefinitely unless a petition is presented to the Railroad Commission requesting reclassification. The committee has delayed this formal action for several reasons.

When the committee was first appointed the secretary of the Railroad Commission wrote the chairman of the committee that "the average rates that the schools are now enjoying are undoubtedly as low or lower than would be worked out by any special rate." At the time of the secretary's statement the case for the schools had not been presented to the commissioners nor to any of its staff members. Since then the commission kindly has sent a representative to the last three annual conventions of the California Association of Public School Business Officials. This representative has addressed the Association and generously has made himself available for interviews. We hope that the association members have given the commission representative a proper picture of the needs of California schools for utilities services reductions and the justification thereof.

Since its appointment the members of the Utilities Committee have attended a number of Railroad Commission rate hearings and have addressed extended remarks to the commissioners at two of the hearings. The attitude of the Commissioners has been very helpful and sympathetic. Consequently the Utilities Committee members cannot believe that the commissioners would take any action that would increase the unit costs of utilities services to *any* school in the state. The committee is preparing data at the present time to present to the Railroad Commission and is hopeful that the commissioners will agree with the committee that utilities cost reductions to the public schools are justified and needed.

### AASA WILL MEET IN ST. LOUIS

The American Association of School Administrators will hold its annual winter convention next year in St. Louis, from February 27 through March 4.

Dr. Homer W. Anderson, president of the association, has announced that the program will center around the responsibilities of the schools in a postwar world.

### THE TEACHER AS A STRATEGIC OFFICER

It is the teacher most of all who can build intelligent understanding of the crucial issues of our time. It is the teacher who can implant in the fertile minds of youth the concepts of a world order in which the peace of free men will not again be destroyed by international lawlessness. It is the teacher who can light the flame of childhood's devotion to the great ideals on which our nation is built. And it is the teacher who can comfort when wartime's discipline burns. A million teachers, reaching more than 30,000,000 children in our schools, and through them influencing the homes from which these children come, wield tremendous power in the building of our Nation's morale. This leadership which the teachers of America can furnish better than any other group becomes their greatest contribution in war as in peace. In this momentous day let us as teachers give all that we can toward the special emergency services. But in this fight for the preservation of freedom, let us not forget our major role, and in its performance so conduct ourselves that "every classroom becomes a citadel and every teacher a strategic officer." — John L. Stenquist.

# A Physician Looks at Children's Seating

James F. Rogers, M.D., Dr.P.H.<sup>1</sup>

"In schools the production of bodily deformity is not easily avoided for there is usually one table for all—well proportioned for some but too high or too low for others." So wrote M. Andry in his little book on the Art of Correcting and Preventing Deformities of Children, issued in Paris two hundred years ago. History repeats herself and educators have in recent years been seating children of various sizes at the same table and in chairs which are the same for all. Are these children being deformed? Not a bit of it, though the children might be the better for more suitable furniture. The matter of seating is a perennial problem about which there has been much talk but to which serious attention is seldom paid.

In the early years of public schooling in our own country, refinements with reference to comfort or ease of work were not given much consideration. However, that pioneer in school hygiene, Wm. A. Alcott (cousin of Bronson Alcott) had much to say on the subject as had that even more vigorous advocate of healthful conditions and health instruction for school children, Horace Mann. In 1840 Dr. Alcott wrote as follows:

The wretched character of the seats for our pupils deservedly holds a conspicuous place in many of the reports of the school committees in this Commonwealth; nor are these better, as a general fact, in the rest of the New England States.

In a small part of the New England schoolhouses, there is a seat affixed to the wall, on three sides of the schoolroom—the fire place and entrance occupying the fourth; and in front of these outside seats is a continuous desk. These seats and desk accommodate from one third to one half of the pupils. In this case the pupils who sit on this outside bench, may recline forward on the desks before them, or rest their backs against the wall. A row of benches stands also within the desks, and is usually so connected with them that the desks form the backs of the seats. The remainder of the seats consist of a piece of plank or slab, supported on four wooden pins, for legs, and without backs. These seats are frequently very narrow, and almost always so high that the pupils' feet cannot touch the floor. In this condition, perched in mid air—no, not in mid air, but amid poisonous gases and effluvia—they are compelled to pass the tedious hours away, till they hear the glad sound—"school's dismissed."

The far greater number of schoolhouses, however, have the desks attached to the walls; and in that case, there are usually no backs of any sort to the seats. It is not more than ten or twelve years since we knew of such a thing as a back to a movable seat in a schoolhouse, in all New England, except in one or two instances where we had persuaded the proprietors to furnish them. Nothing could be more irrational; nothing more unnatural; and few things more cruel.

In some of the schoolhouses in Northfield, "the seats are uncomfortable for many of the children, because they are so high that they cannot rest their feet"; they are also said to be "badly arranged."

In Shutesbury, some of the "seats are miserably constructed." In Salford, the committee "recommends that each schoolhouse be provided with benches, or seats, suited to the size of small

scholars, with something to rest the back against, and so low that their feet may rest on the floor." In Lanesborough—the "children's seats are too high, in all of them." In Hamilton—"the seats are too narrow, besides being rickety and loose." These serve as specimens of the evil of which we are now speaking.

Alcott, and most writers on the subject since his time, was especially concerned lest a deformity of the spine be produced by the use of an unsuitable seat or desk. On this subject he had this to say:

We have doubts whether one female in ten comes to maturity in New England, without having her spine curved in one way or another, by sitting too long in an unnatural position at school. The danger of sitting in a bad position, while writing, is beginning to be understood; why can it not be seen that there is danger still earlier?

But the curvature of the spine is not the whole of the evil. A crooked spine, if it is healthy, may be got along with. But by being habitually curved, there is danger of having it become diseased, and of having the disease affect the nerves which proceed from it, and the brain which surmounts it. Some of the most formidable diseases which medical men have to encounter, are those of the spine, and those which have their origin in this course; and it is high time it were known that these terrible evils may sometimes be traced to the narrow, wretched seats of the school room.

## Spinal Curvature

Lateral curvature of the spine (scoliosis) occurs today, but it was far more common a hundred years ago. However, this greater frequency was not due to the fact that school seats were less fitting then than now, but because the materials for the making of good spinal columns were more often lacking. Bony deformities generally were so frequent that in military drill regulations it was found advisable not to require the soldier, when standing "at attention," to bring his heels together for the reason that a large percentage could not do so on account of crooked legs.

The cause of curvature of the spine was not known and since school children very often sat, for a time at least in such a posture that the back was bent or twisted to one side, it was but natural that school seats got the blame for this condition. From the days of Alcott up to the present, every writer on school seating has harped on this theme and one does not have to search far for pictures which show just how this deformity is produced by an ill-fitting seat or desk. Even so the pictured warning (for spinal curvature may be a very serious condition) has not been heeded very much, in practice, by school authorities.

But does the school seat produce this or other deformity? Since no favoritism was shown in the seating of children, why did they not all have a curvature of the spine? It was not until the beginning of the present century that anyone attempted an investigation of the matter. Hirsch, in Magdeburg, Germany, exploded the long-persisting idea by pointing out that 20 per cent of children had some degree of spinal curvature *on entrance to school*,

while 3.8 per cent had a fixed curvature or true deformity. Only those who have these abnormalities on entrance are likely to exhibit them later in life. Not all cases of scoliosis are accounted for, but where something does not go wrong in the making of the human carriage before birth, the condition is probably always due to lack of body-building materials after that time, and to the condition called rickets. Even so, the school board is in no way absolved for not furnishing seats in which the child can maintain, with least effort, the normal shape of his back, for if he has an innate fault or weakness in this region, an ill-fitting seat and desk can only aggravate the condition and make it the more difficult for him to do his schoolwork in comfort.

## School Seats and Good Carriage

Besides the production of lateral deformity of the spine, the most commonly presented argument for "suitable" seating has been that it preserves the normal posture of the child and prevents the production of an abnormal or undesirable carriage. By "carriage" is meant the lines of the body as seen from the side. Various students have presented very differing ideas on this subject, and the adjectives "good" and "bad" applied to postures have depended on the point of view of the person making use of them. All sorts of abnormal physical, mental, and moral traits have been attributed to different degrees of erectness or stoop of "square" or of "round" shoulders, and there are varying ideas as to the aesthetic values which may be involved, according to whether the body (and therefore the spine around which it is built) follows the lines of a ramrod or is of a more curvilinear type. We do not quarrel with nature for not making us all of one height nor do we expect facial features or even arms and legs to follow one pattern, but (possibly because the spinal column is elastic) there are those who think we should all stand or sit or move in a posture which to their mind is ideal. Certain carriage models have even been set up as most efficient from a mechanical standpoint, although without regard to the relative amounts of work accomplished by those with carriages which happen to be built along such lines. Theorists to the contrary, we find as much variety in human carriages as in any other physical feature. These carriages may, however, be affected more or less by fatigue or by malnutrition (which induces fatigue) and they are sometimes damaged by disease. But what of the school seat and carriage?

Investigations of the posture of the child, whether sitting or standing, through the grades, show no appreciable change from year to year. No doubt there are individual cases, affected by malnutrition or some more specific ailment, but on the whole, there is no evidence that the school seat produces permanent deleterious influence. However, Bennett found that about 10 per cent of the pupils he observed in the

<sup>1</sup>Washington, D. C.

morning session lapsed in the afternoon from what he considered a "good profile" in that session. Here was evidence either of fatigue or of ennui. However, no record was kept of the furniture occupied by the slumping students nor with reference to the nature of their work, so we do not know whether that furniture had anything to do with the change in posture.

#### Grotesque Attitudes Rest Children

No matter how fitting the seat and desk may be, according to the notions of the seater, even such seats and desks do not remain comfortable for long, and a pupil will relax into what some may consider a "poor" posture in any seat in which he may be placed. If he does so, we should not hold up our hands in horror and immediately try to set him up according to our ideas of what his posture should be, for he is only doing the natural thing. As Dr. Wilkes puts it, "Some of the grotesque attitudes in which children sit or lie have a real purpose back of them, for they relax the child's tired muscles and let him 'rest up' most quickly." The child who droops, whether standing or sitting, needs a change, physical or mental, or both.

Seemingly the author is belittling this matter of seating for he has been kicking over some long held ideas as to dire results. Nothing is farther from his intent. On the other hand, he would urge school authorities to give full attention to the subject. It is all a matter of comfort and ease, and these are very important if we want children to do their best. We adults resent discomfort and dis-ease and we try to escape them but the school child is at the mercy of his masters. He will adjust to circumstances as best he may but we might minimize for him the need for such adjustment. In a word, we should fit the seat and the desk to the carriage in which he comes to school as nearly as we know how.

An advertisement in the daily paper reads, "Proper clerical seating is an investment that pays big returns in better work and happier, more comfortable employees." The school child is uncomplaining and he can be happy under conditions which are mentally agreeable, though physically unsatisfactory. He will read and write with his feet dangling in the air, or with his knees as high as his chin; he does not ask to rest on rubber cushions; nevertheless, he will be least fatigued and work most easily with "proper" seating and desking.

What do we know about the business of proper or suitable seating? Nothing that has not been known for years, and we must forget the recent attempts (in the age of standardization which we hope is past) to make all children have the same profiles.

*Height of seat.* The item of first importance is the height of the seat. Makers of school furniture are usually so sensible nowadays in diagnosing the details of the seat that if it is of "proper" height the problem is largely solved. Certainly it is improper to so sit that the feet cannot rest comfortably on the floor, and allowance must be made for placing the feet forward occasionally. There should be no constant pressure upon the thighs just behind

the knees, and this means that the seat is not to be too curved or dished.

#### Comfort the Essential Need

*Depth of seat*—The child should be able to rest against the back of the seat readily without bending his spine. The back of the seat should not push the pelvis forward, but the lower and upper back should be supported. The back of the seat should be somewhat inclined backward. Since no two carriages are alike in their contours, refinements of curvatures in the seat backs are superfluous.

Where seats do not meet these simple requirements, it is quite in order to correct their deficiencies by cushions below or in the back, or by placing a board of suitable thickness beneath the feet of the child.

After all, the best way to determine whether a seat is suitable is to place the child in it and observe whether he maintains his usual posture and seems fairly comfortable in his work.

*The desk*—As Kerr says, "the ideal desk is a will-o'-the-wisp." However, it should not be so close that the pupil cannot readily enter his seat, nor so far away that he must lean forward more than is necessary. It should not be so low that he must stoop unduly nor so high that he must lean to one side when writing. The desk should not slant so much that papers slide off. In a word, the child should do his work with what seems a maximum of comfort. Even so we need not expect him to maintain what we may consider a model posture while at work, though he will, under such conditions, lapse least from his usual unfatigued lines.

*The individual seat*—We have returned, in some educational procedures of the day to the use, by a number of children, of one table (not nearly so good as the slanting desk top) and of chairs of one height, a practice objected to by Andry two centuries ago. Exercises with such arrangements are not continued very long at a time, and it is to be hoped that for the longer periods of his sitting and working the child will still have his own separate seat and desk. These serve not only for comfort and ease of work but also, in some degree, in reducing the spread of colds and other diseases which is brought about more certainly by more intimate contact.

*Vocational seating*—A study made in London of the carriage of boys of 15 years engaged in manual training and shopwork showed no difference in posture as compared with those in other secondary schools. The investigators concluded that "posture defects do not arise in technical schools in virtue of the school conditions." They also decided that there is no ideal bench and no worktable which does not necessitate bending over. Nevertheless, it is most important that the student work in as comfortable a position as possible. Even though it does not affect his habitual posture, his seat or bench should be of such a height that he works with least fatigue and hence with the greatest ease. His work will not be trying during his school days but in the longer hours of office and shop small matters affecting comfort count. The student should be instructed to adapt his work

to himself as far as possible by choosing or adjusting his seat or his desk or his bench to his carriage rather than adjusting his own carriage to his work. I once had my hair trimmed in a European city where the chair was not adjustable and was comparatively low to begin with. The barber, much of his time, had to stoop and bend his body or flex his knees and these activities must have been a source of much fatigue in the course of the day's work. The students in our trade or industrial schools should be trained to choose such positions for work and such furniture as provide the best conditions for productive activity.

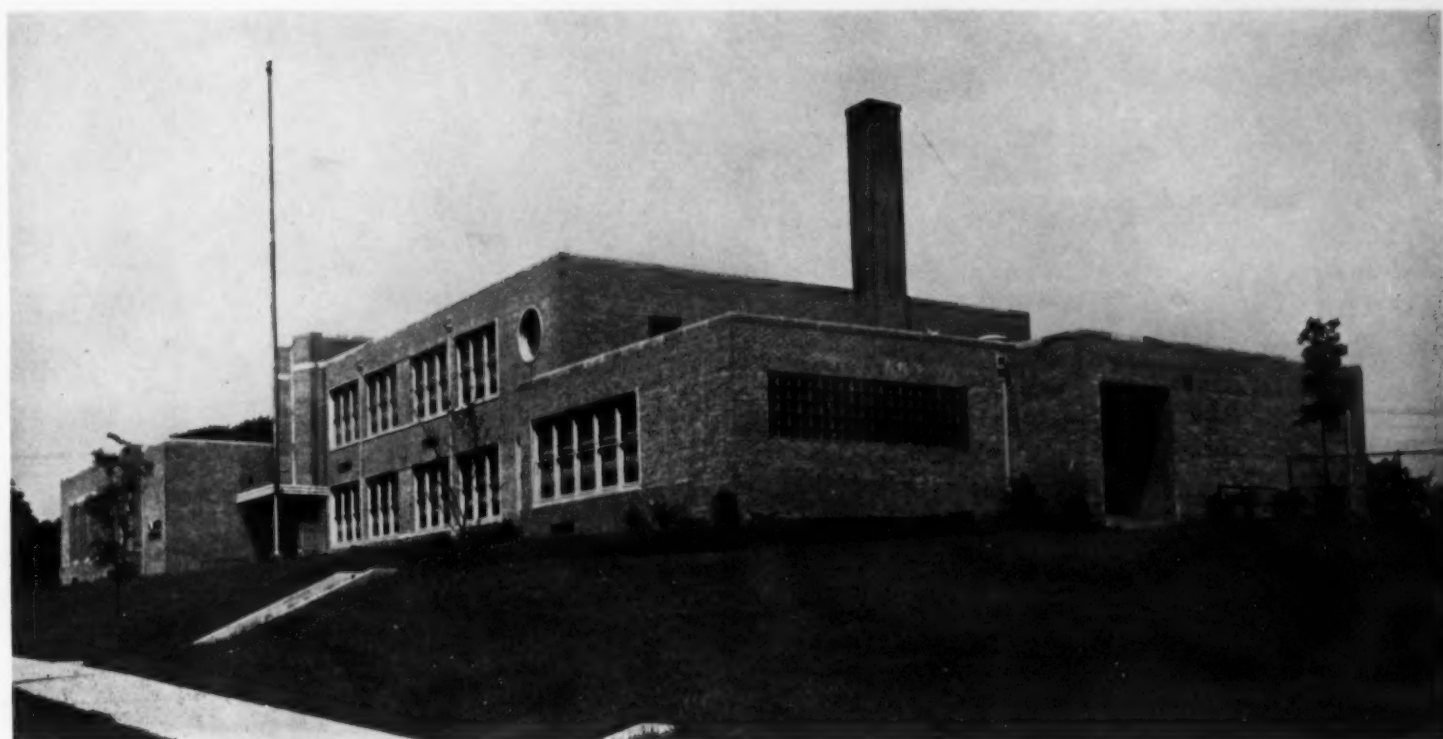
#### Seating in the Home

In home study the child is likely to spend more time, than in school, in one support for his body. We cannot say "in one position" for as we have seen, the body does not stay in one position for any length of time unless when fully supported or reclining. Seldom has any attempt been made by parents to fit their furniture to the child and if this was done it would entail a change from year to year as the child grows. Nevertheless, he should work with a reasonable degree of comfort, and, as in ill-fitting school seats, a cushion for the back or a support for the feet may make a chair built for an adult more suitable for the child. It goes without saying that no matter how the student is seated or desked for homework, his light should be so located that he will not look into it and that it will not be reflected directly into his eyes from his work, or as is sometimes the case, from the surface of the table at which he is seated. But we are getting away from seating and into the realm of illumination.

To review briefly: children come to school in the family carriage, or in this as modified by early experiences. As with other human features, these carriages present a considerable variety of models. Despite ill-fitting furniture in which the child may be seated, his carriage is not likely to suffer deformity or other serious change—the human body is too self-protective for that—but the pupil will do his best only when he works in comfort and ease and it is poor economy for school officials not to offer him such conditions. Most makers of school furniture design seats and desks which, when chosen for the size of the pupil, are otherwise fairly suitable for his purposes. When such furniture is not available, certain adjustments can be made to render it more comfortable. The seat in which the child maintains his usual, unfatigued posture for the longest periods is the most fitting and hence the most comfortable.

#### KANSAS CITY BOARDS HOLD MEETING IN TOPEKA

School boards in the state of Kansas held their third annual fiscal management meeting in Topeka, on May 22. Among the subjects discussed were wartime rationing and priorities, transportation problems, and civilian defense. The speakers included Lloyd H. Houston, Lawrence; P. J. Newman, Manhattan; John G. Stutz, Lawrence; Dale A. Fisher, Topeka; and Albert B. Martin, Lawrence.



The Parker Elementary School is attractively placed on a high site with a large level playground at the rear. — Joseph W. Radotinsky, Architect, Kansas City, Kansas.

## Functional and Artistic Schoolhousing in Kansas City, Kansas

F. L. Schlagle<sup>1</sup> and L. H. Brotherson<sup>2</sup>

On February 26, 1942, Parker Elementary School of Kansas City, Kans., was chosen for an award, by the American Institute of Architects, as being the best public building erected in 1940 in the area including western Missouri and eastern Kansas.

### Significance of the Award

In the *Kansas City Kansan* for Monday, March 2, that newspaper commented as follows about the award:

"The little red schoolhouse has come a long way. It is one of America's most valuable traditions and institutions. As a tradition the public school has welded its pupils into strong communities. As an institution it has made democracy practical.

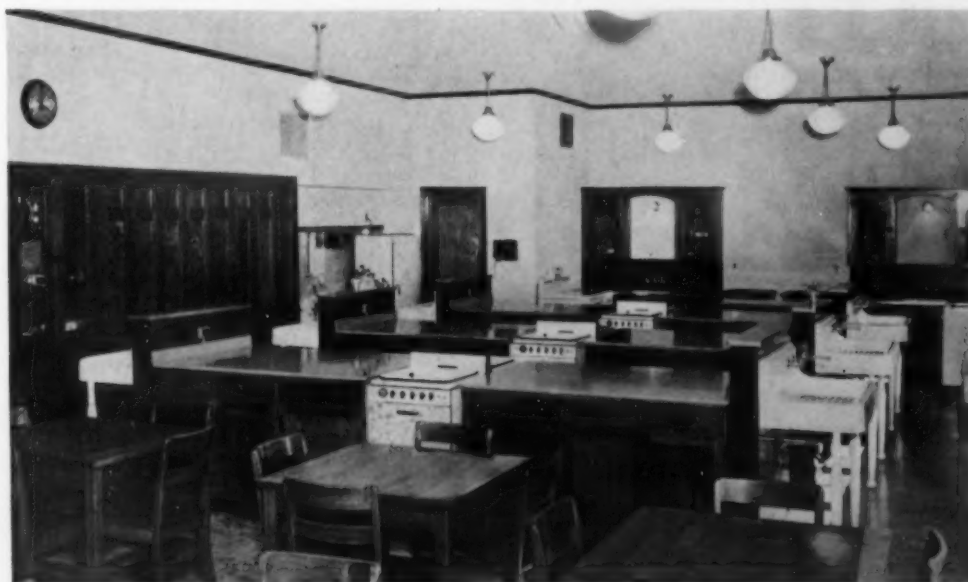
"Though we may have wavered at times or forgotten the precepts taught us in grade school days, we continue to owe much that we are as individuals and as a nation to the little red schoolhouse. It is therefore not improper that something be done to make that institution more beautiful and more useful in its physical form.

"Just because most of us survived the rugged simplicity if not atrocious appearance of the little red schoolhouse does not mean that we should not provide better

facilities for our children. We are providing better schools for each generation and proof of this is all around us.

"Special proof comes now in the award announced by the Kansas City chapter of

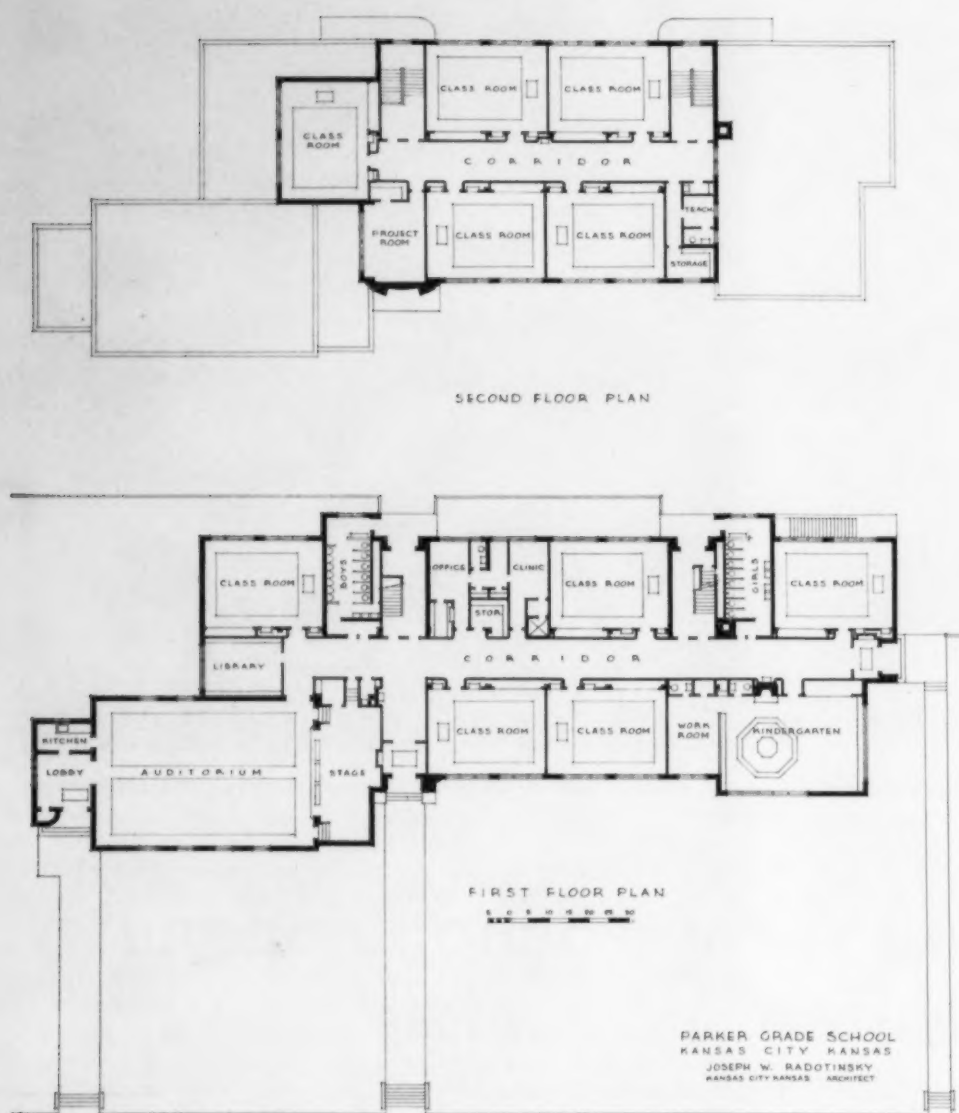
the American Institute of Architects that it has cited the Parker Grade School, Thirty-third and Haskell, as 'the best public building erected in this area.' This award pays tribute not only to the architect, Joseph W. Radotin-



The home economics laboratory is arranged on the unit basis and is a fine example of desirable home equipment.

<sup>1</sup>Superintendent of City Schools.

<sup>2</sup>Business Manager.



Floor Plans, Parker Elementary School, Kansas City, Kansas. —  
Joseph W. Radotinsky, Architect, Kansas City, Kansas.

sky, who designed the structure, and to the builder, Lysle W. Weeks, of the Weeks Construction Company, but also commends the board of education and its management for the vision to build both attractive and useful school buildings."

The Parker Elementary School and the one million dollar Sumner High School for Negroes culminated the Kansas City, Kans., four million dollar school building program started in 1933.

Both buildings show that modern school-housing allows beauty of architectural form and arrangement, complete compatibility with practical educational and mechanical planning. Both buildings also reflect the national improvement of school buildings, and a wide understanding of the functional yet artistic housing that has come through years of local planning and building experience.

#### The Parker Elementary School

The motif of Parker is simplicity. It emanates modernity, grace, and dignity. Its modern design is expressed definitely by mass and fenestration and by extensive use of dark shades of fire-clay brick. For striking contrast, particularly the tower entrance, large

block slabs of cut stone were used. Into this field were inserted highly ornamental and protruding sculptural pieces of stone.

The school houses every educational need for 430 elementary students. Besides 10 classrooms, it has an office, clinic, gymnasium-auditorium with stage and adjoining kitchen, kindergarten, library, work project room, teachers' rest room, and boys' and girls' toilets.

The gymnasium-auditorium can be used independently without interfering with the academic portion of the school. The room reflects the fact that any activity for which the room might be used is adequately taken care of by the choice of interior finish materials. The wainscoting, for example, is a deep chocolate, smooth-face iron-spot brick. Above the wainscoting line a checkerboard pattern of large 8 by 8-in. buff fire-clay brick is used. The ceiling is finished with an acoustical reflecting block, with lighting fixtures recessed flush into the ceiling.

The stage is located directly off the classroom corridor to afford easy accessibility to classrooms. This allows teachers and students the use of the stage for productions and activities without undue traffic. A red velour curtain is provided for the stage, as well as footlights to facilitate correct lighting for all dramatic activities. Space under the stage provides storage for 350 chairs.

At the other end of the gymnasium-auditorium is a kitchen connected by an adequate sliding serving window. Its facilities make it a logical community center for parent-school activities.

The 10-ft. corridors have floors of black asphalt tile, acoustically plastered ceilings, and glazed tile wainscoting topped by light-green elongated glazed tiles.

Each classroom is equipped with standard slate blackboards, a unit wardrobe, an individual teacher wardrobe, a bookcase, and 40 combination chair and desk units.



Modern equipment for cold and hot working of metals, glazed tile walls, unit heaters and exhaust ventilators, are to be found in the metalworking shop of the Sumner High School.

The kindergarten room has tables, fireplace, boys' and girls' juvenile toilets, and a project room. This room, equipped with a workbench and modern educational play equipment, is separated from the classroom by a 4-ft. wall, making supervision easy yet giving children a feeling of independence. The floor of inlaid linoleum has a colorful ornamented reading circle with inlaid animals, figures, and alphabet inserts. The over-all ceiling is acoustical plaster.

On the second floor is the culminating activity room with a room-length workbench and adequate storage space. It has a 5-ft. unglazed tile wainscoting and an acoustical plastered ceiling.

Both boys' and girls' toilets have a corridor and a playground entrance. Considerable work was done with ground improvements surrounding the school in both planting and playground areas. The ground which covers 3.6 acres is well drained, with an adequate play area covered by a 1-in. top of emulsified asphalt.

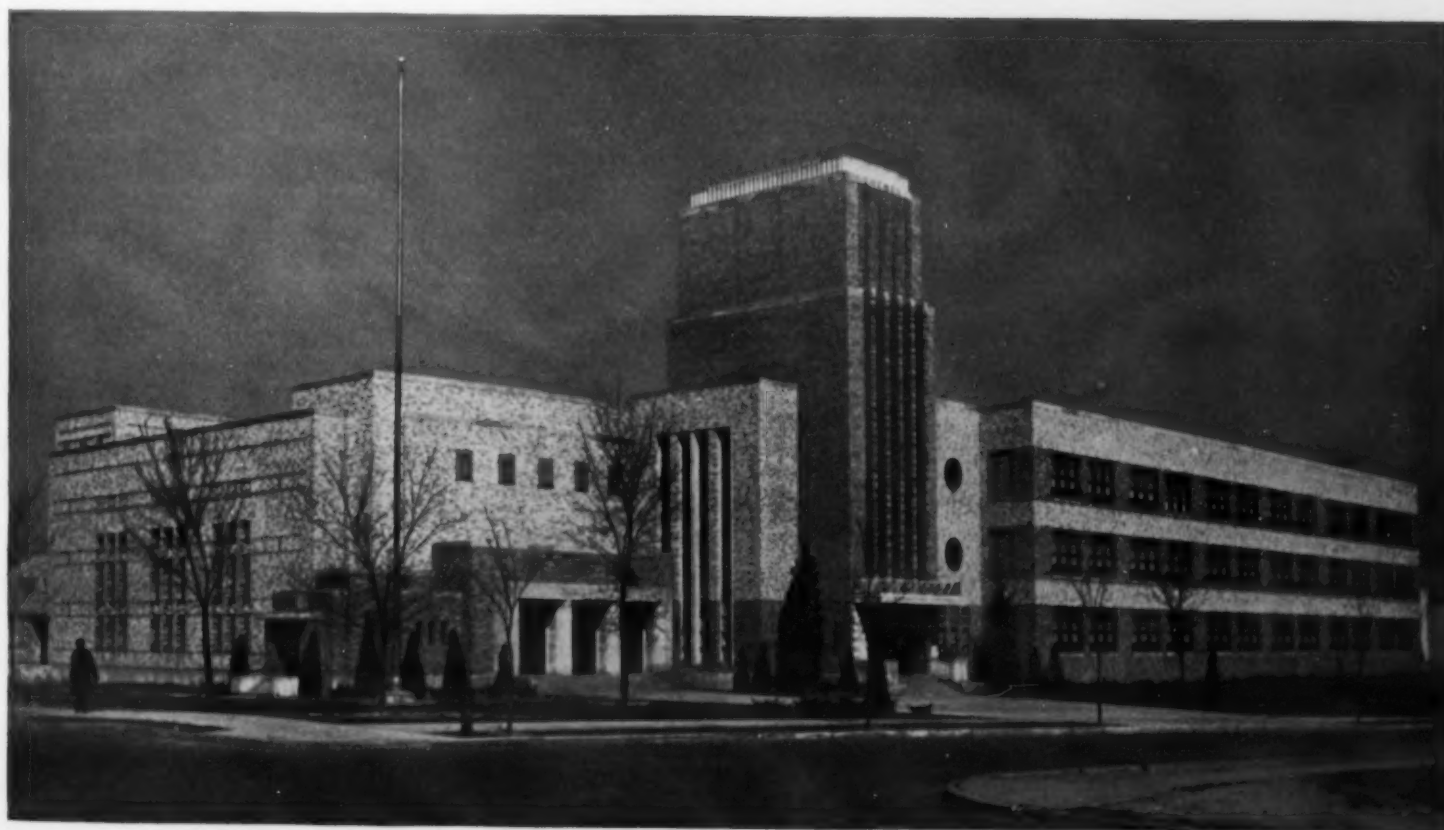
The Parker School cost for building and equipment was \$133,917.75.

#### The Sumner High School

Sumner High School was constructed to serve the educational objectives and needs of the Kansas City, Kans., Negro commu-

Below: General View, Sumner High School, Kansas City, Kansas.

Right: The tower entrance is one of the striking architectural monuments of the city. The entire space in the tower has practical uses for instructional purposes and for housing machinery and tanks.





The auditorium is attractive in color, complete in equipment, and beautifully lighted.  
The seating capacity is 1100.



The living room of the housekeeping suite is attractively furnished. It serves to teach the principles of interior decoration and home care. By a clever arrangement the room may be used for a living room, a dining room, or even a bedroom.

nity. The building's architectural arrangements and provisions have taken full cognizance of the requirements of Negro education.

#### Modern Functional Design

The building is an example of modern design adapted to a modern functional plan. The usual architectural principles of planning which do not encourage dual entrances were enforced here because of the site and its relation to the school's population.

The streamlined tower is entirely functional as it houses the air-intake chambers, filters, and heating units.

The building exterior is of fire-clay brick. The success of the design is accomplished in the unique massing combined with the symphony of color and shades used in the exterior treatment.

The school is excellently equipped in vocational facilities. The girls' vocational department is comprised of a complete home-living and foods suite, and a cosmetology room. A class in cosmetology, such as is housed in this room, is unique in a Kansas public school. It has complete, modern cosmetology facilities for 20 students. The instructor, a registered beauty operator, is employed under the provisions of the Smith-Hughes Act.

The boys' vocational facilities are even more extensive. Here the cue was taken from the growing complexity of occupational requirements. This section includes a building-



Left: a corner in the housekeeping suite. Center: model home laundry unit. Right: a corner in the vocational beauty culture department.

trades room, a metal trades room, currently housing defense training classes, and a wood-working room. The ceilings of all these rooms, the music rooms, choral and instrumental, office and corridors are finished with acoustical plaster.

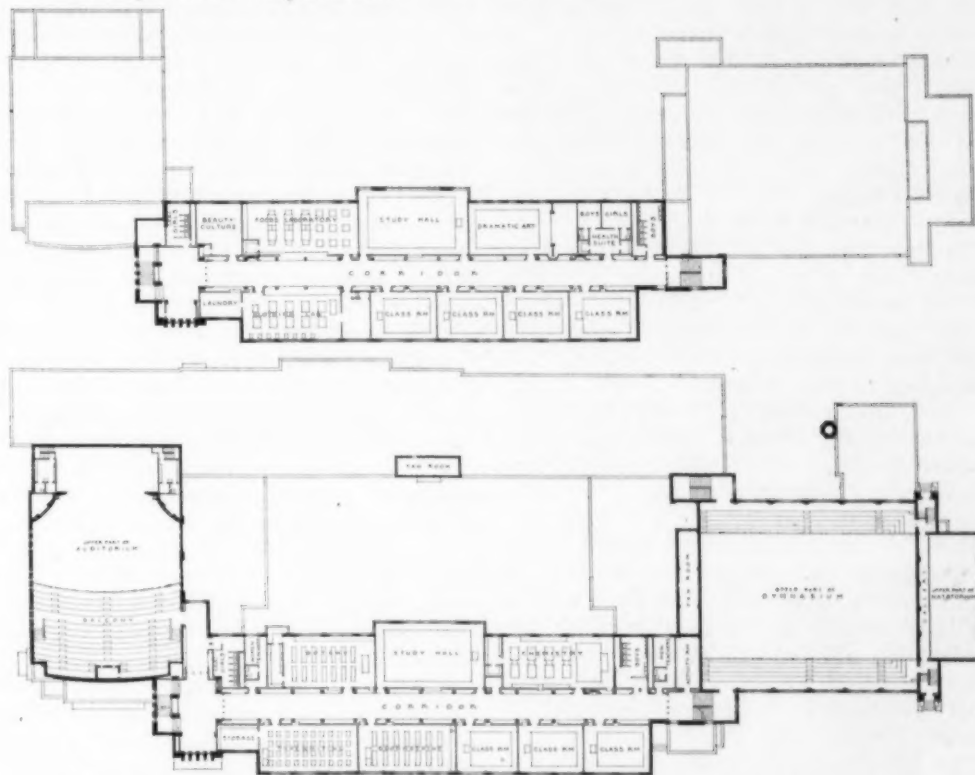
The building throughout is functional in design and construction. Its interior orientation allows easy student circulation and maximum departmental co-ordination.

Without departing from building efficiency, much use has been made of color through variety, finish and design of walls, floors, and ceilings. The finishes run the gamut of color from brilliant orange of the proscenium arch of the auditorium stage to the warm cream color of the general interior tile work.

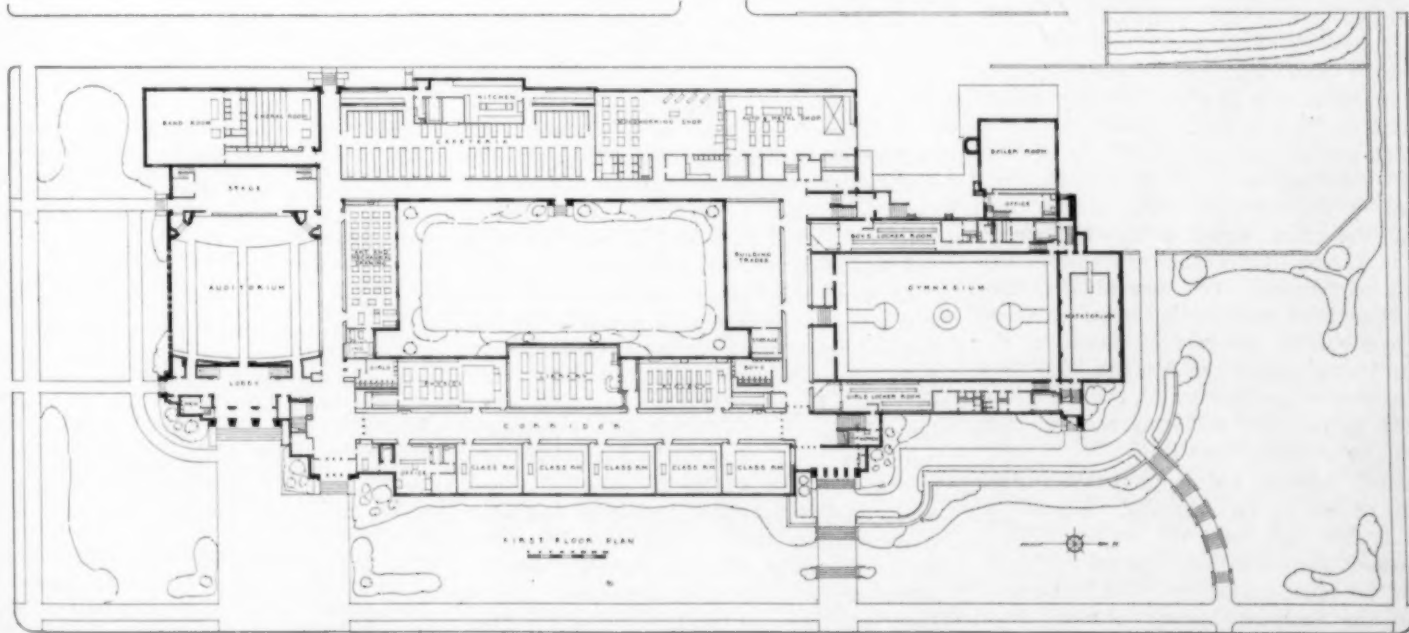
#### Pupil Capacity and Cost

The school, with a working capacity of 1250, adequately houses both the senior high school and the junior college. It has the distinction of being the only Negro high school and junior college in the state.

Sumner High School costs were disbursed as follows: building, \$679,596.82; grounds and improvement, \$30,061.93; furniture and equipment, \$93,154.38.



Third and Second Floor Plans, Sumner High School, Kansas City, Kansas.



First Floor Plan, Sumner High School, Kansas City, Kansas. — Joseph W. Radotinsky, Architect, Kansas City, Kansas.

## How Safe Is Your School Today?

John B. Fisher<sup>1</sup>

There is no concern closer to the hearts of American school patrons and teachers than the safety of the nation's children. The problem of fire protection has always ranked foremost in this regard and imposes a severe responsibility upon those in authority. Today, that problem and that responsibility have been made increasingly complex by this war in which we stand today so reluctantly yet resolutely embattled. The demands which it will make upon us will be severe and some of them will be new, but it can be quite safely said, in respect to the defense of the schools against fire, that those precautions which have proved their value in time of peace will be even more effective in this time of war. Although the incendiary bomb and the saboteur may be features of fire attack that are foreign to us, we shall not find ourselves unfamiliar in the least with the actual fires that they may set. For fire, from whatever cause, is an old and common enemy. If we are well prepared to fight it in its peacetime guise, as the aftermath of indifference and sheer carelessness, we shall find ourselves equipped to meet it now.

Basic among school fire protection principles is the necessity of sound construction in the school buildings. The modern trend in such construction represents a distinct improvement over that prevailing a generation ago. Many of the more recently erected school buildings are of first-class, fire-resistive construction with ample exits. But there are still a large number of buildings in which fire safety has not received sufficient consideration; where the exterior walls are of substantial construction, giving the semblance of safety, but where the interior is built to burn.

In some cities also much has been done to improve the older buildings. Some of the more dangerous structures have been abandoned for school purposes altogether. Others have been provided with automatic sprinklers and additional exits—splendid precautions at any time and strongly recommended in these critical months of war. A building can be constructed entirely of "fire-proof" materials and still present a severe hazard, if stairways are open, if exit areas permit the rapid spread of fire and smoke, and if combustible contents are not thoroughly safeguarded. Yet, despite the efforts that have been and are being made, school fires continue at the rate of seven per day in the United States and Canada. Can those who ignore, or are ignorant of, the seriousness of the school fire problem, require more convincing evidence than this?

Samuel Johnson put it pretty well when instructed as to be reminded. Another of he said that men need not so much to be the school fire-protection principles that we cannot be reminded of too often is summed up in the familiar, homely phrase, "good

housekeeping." A clean school building, especially in basement areas, is well on the way toward being a safe school building. Among the major causes of school fires in the past decade have been basement rubbish and litter, defective heating apparatus, and poorly maintained electrical equipment. Inspection, detection, and correction of these common hazards at frequent intervals will prove a satisfactory safety formula.

The tragic loss of life that was featured years ago in such school fires as those in Collinwood, Ohio, Camden, S. C., and Babbs Switch, Okla., has been due in great part to the inadequacy of building exits. They have been either insufficient in number and size, poorly located, or equipped with doors which—of all things—opened inward. Exits should always be so arranged that there will be at least two separate means of escape from any part of the building, so located that should fire or smoke interfere with the use of one, another will be readily available. The exit details themselves are important. Stairs should be properly designed, doors must swing with the exit travel, handrails and lighting must conform with accepted standards. If children's lives are to be protected, and surely they are far more precious than any building, this matter of properly arranged and carefully constructed exits deserve the utmost consideration. School heads and other officials will find the national Building Exits Code, the official standard of the National Fire Protection Association, to be an extremely useful reference on this subject.

Closely allied to this is the individual school's system of fire alarm and fire drills. A regularly inspected alarm system, of suitable type, and in good order at all times, is a prime essential of any school fire-protection plan. Alarms must be made clearly audible to every teacher and child, and they in turn must be made familiar with the exit procedure to be followed whenever an alarm is rung. Emphasis should be placed upon orderly controlled exit rather than on speed alone. Too, drill practices must be sufficiently flexible to meet any unforeseen circumstance. For example, should a fire occur in or near a main exit, children should be marched without hesitation to some other point of egress.

Lack of training in fire drills and mass evacuation of buildings in a quick, efficient, and orderly manner has been responsible for more young people's deaths than one cares to recall. In many schools fire drills are a farce, if they exist at all. Previous announcement of a drill is often made, a practice which, of course, defeats completely the real purpose of an emergency alarm system. A fire never gives warning that it is about to break out. At its discovery, however suddenly and unexpectedly it may have appeared, children must have been so trained that they will act sensibly together, without panic, under the

cool direction of teachers. Efficient fire drills must never be underestimated for any reason. They may save your child and hundreds of others in an hour of crisis.

Though a majority of school fires in the past have taken place after hours, when the buildings were unoccupied, it is not unlikely that in these war months, an incendiary attack may endanger lives and property at a time when school is in session and buildings full. In such a case, the fundamental principles of protection—a clean, uncluttered school building, sufficient and adequate exits, an effective alarm system, and efficient fire drills—will not fail. With regard to the actual fighting of fires which may be set by an attack of this nature, the closest cooperation at all times between school officials, the public fire department, and local civilian defense organizations is recommended. The school authorities' responsibility lies first and foremost in the sane and swift evacuation to safe points of all those within their charge. The duties of fire fighting proper lie elsewhere but school officials can do much, if intelligent co-ordination has been arranged for beforehand, to expedite the work of the public firemen. Fire protection, at any time, is *everybody's* business, though each one may have a different task assigned.

When all is said, written, and done about school fire protection, we find ourselves returning still to a great and simple truth: that the protection of life—and this can't be repeated too often—must ever be the chief end and aim of protection of school property. A schoolhouse can be rebuilt. It is different with the life of a child.

### THE N.A.P.S.B.O. WILL MEET IN CLEVELAND

President H. S. Mitchell has announced that the annual meeting of the National Association of Public School Business Officials will be held October 5 to 8, in Cleveland, Ohio. The headquarters will be in the Statler Hotel.

Among the topics to be taken up at the meeting are: "The Business Official's Responsibility in the Emergency"; "Educational Leadership in the Emergency"; "Business Aspects of the Curriculum and Emergency Programs"; "Problems of Finance and Revenue Arising from the Emergency"; "Long-Range Effects of the Emergency Adjustments"; "The Priority System"; "The Protection of School Children and Property"; "Standards and Specifications for Purchasing"; "Problems of Reimbursement on Defense-Training Programs"; "Salary Schedules and Cost of Living Adjustment"; "General Maintenance Problems During Wartime"; "Problems of Repair and Replacement."

Mr. James F. Brown, director of schools, Cleveland, is chairman of the local committee on arrangements.

### SCHOOL-BUILDING CONSTRUCTION

In 11 states west of the Rocky Mountains contracts were let during the month of May for 25 new school buildings, to cost a total of \$6,509,345. A total of 21 projects were reported in preliminary stages, to cost \$19,497,865.

Dodge reported during May, contracts let for 331 educational buildings in 37 states east of the Rocky Mountains. The cost was stated as \$10,073,000.

### SCHOOL-BOND SALES

During the month of May, 1942, bonds for the construction of school buildings were sold, in the amount of \$656,800. The average rate of interest was 2.33 per cent.

<sup>1</sup>National Fire Protection Association, Boston, Mass.

## The Superintendent Views the Problems Created by the War

American schools face a world in which the immediate aim of all citizens is to win the war and to win the peace which follows. For the present the schools can contribute much by solving numerous special problems of education and morale building arising directly out of the war. How this is being done in one community was made clear recently in a public address by Supt. Loy Norrix, of Kalamazoo, Mich. The paper as read summarized the opinions of some 85 high school teachers and department heads who are facing war problems on the classroom front. Briefly, the problems may be classified into six major categories.

1. Administrative problems of securing and replacing equipment and supplies.
2. Administrative problems of maintaining student and teacher morale.
3. Administrative problems of the shifting in student course elections.
4. Administrative problems of maintaining qualified personnel.
5. Problem of budgeting administrative time to insure effective leadership.
6. Administrative problems of instruction.

### 1. Securing and Replacing Equipment and Supplies

Mr. Norrix pointed out that the problem of equipment and supplies is especially evident just now when school budgets are being completed and presented to boards of education. "It is not so much a problem to the theorist in educational administration as it is to the administrator who is actually on the job preparing budgets and administering the purchase of school equipment and supplies. Most theory and practice concerning the making of school budgets in Michigan have broken down since the passage of the 15 mill tax rate limitation. The budget in 90 per cent of the schools is determined not through a detailed study of the needs of the school district, but through an estimation of the maximum amount of money which can be raised through the limited property tax and state aid.

"The school administrator is faced," continued Mr. Norrix, "with having to provide equipment and supplies for maintaining buildings, laboratories, shops, offices, and a host of other services in a market in which the costs of these equipments have risen sharply, and with curtailed production and delivery of certain items. Principals and others in our system who assist in preparing our budget have been informed that approximately the same amount of money is available for next year as for the present year, and that the number of items will necessarily be reduced as costs rise with the increase in the cost. Most school systems are conserving certain supplies. Our teachers have been requested to begin using our miles and miles

of unused blackboards as a means of conserving supplies, both for the school district and for the family budgets. The administrator must prepare to extend the use of certain items of equipment such as typewriters and other office machines beyond the limit formerly established and in force today. In our system we have agreed that no new textbooks will be adopted for a period of at least a year. Our metal shops have standing orders with bakeries and other establishments for tin cans. Hundreds have been used in the shops to extend our supply. Our pupils have collected about 80 tons of newspapers and magazines since September, and over 1200 of them collect scrap as a private business, which we encourage and protect. The school administrators are in for a period of economy in the purchase and use of school equipment."

### 2. Maintaining Student and Teacher Morale

In the replies which Mr. Norrix received from teachers, a feeling of insecurity on the part of students and teachers was frequently mentioned as an important problem to be considered. "It was interesting," said Mr. Norrix, "to note that insecurity, except in one case, had no reference to salary nor to tenure of office. For the most part, insecurity was mentioned in connection with not knowing when the teacher was to be taken into military service or being uncertain as to just what 'certainties' there are in the world situation which teachers may use as a basis for their teaching international understanding. Pupils often feel insecure with regard to similar situations. A brother or a relative has joined or soon may join the armed forces. Or the students themselves may contemplate dropping of school to enter some branch of service, or to take a job in industry. One department head mentioned that pupils in her department often demonstrated uncertainty as to 'rightnesses' and that they show a lack of purpose and an indifference to the serious needs of young people. Another department head asked how we could prevent the spirit of revenge toward enemy nations and races. This gentleman heads the social science department. He mentioned that the students are beginning to demonstrate a spirit of boastfulness, and he fears, too much false confidence that one American can whip five —. He does say that our young people are strictly nonisolationists. These problems are no less problems for the school administration.

"We are witnessing emotional disturbances among children and young people which will increase as the effects of the war come closer to us. Now, more than ever, teachers will have to adopt a mental hygiene approach in discharging their duties. A knowledge gained from the basic courses in child guidance should be required of all teachers."

### 3. Shifting in Student Course Elections

"There are two major factors," continued Mr. Norrix, "which apparently are causing a shift in course elections at the present time. One of these is the emphasis which the government has been placing upon certain vocational courses, especially sheet-metal work and welding. This emphasis is beginning to lure students from other shop courses and business courses and is creating a problem in the securing of teachers and equipment in sheet metal and welding.

"The second factor which is creating a shift in course elections is the position which our nation is taking in world affairs. While I don't believe that many educators were isolationists even before the outbreak of war, I am convinced that the attitude of a large number of our citizens greatly conditioned the attitude of our students. The cooperative policy of this government with Latin America is beginning to receive notice in our schools. There is, at present, a trend in student elections toward courses in Spanish and Latin American history, and away from French and French history. Courses in German seem not to have suffered much as yet but we may expect that they will in time if the war is prolonged. The uncertain status of France is contributing to loss of interest in the French language. Wouldn't it be a crime if graduate schools dropped the French language requirement? Schools are beginning to feel that they have a major part to play in promoting the good neighbor policy with our neighbors to the south and that merely teaching the Spanish language will not be sufficient. It will be necessary that we have a thorough understanding of the customs of our neighboring people and it is just as necessary that they have a thorough knowledge of ours. We have long disregarded the study of the history of the Oriental countries. This will come in due time when our country really becomes interested in promoting international understanding."

### 4. Maintaining Qualified Personnel

Discussing one of the administrative problems which is now receiving more publicity than any other, the supply of teachers, Mr. Norrix said: "I do not pretend to be an authority on the supply of teachers. I can speak only for one system. Judging from the number of applicants who are being interviewed this spring, every vacancy which we expect to have, could be filled by at least a half dozen different well-qualified persons with the exception of vacancies in special education, and special fields such as industrial arts and home economics. Of course, men are difficult to find for any position. Even though this is true in Kalamazoo, it does not follow that this is the case in all systems. Frankly, I think that practically all the applicants we have interviewed, with the exception of those coming out of college in June, are now under contract. But this is usually the case. If we should employ them, vacancies would be created elsewhere.

"I suspect that many systems will suffer next year because of the teacher shortage.

We follow a policy, at one time popular but now frowned upon, of not re-employing women after they have been married. Our policy in Kalamazoo was adopted during the depression and only upon one justification—the employment situation existing at that time. No other basis for justification was ever offered. I assume that the same situation was true in a large majority of the communities in which the same policy was adopted. If that is correct, and in fairness to the policy at this time, boards should, if the policy is changed, revise or eliminate it upon the same principle for which it was justified in the first place—that is, the employment situation in the community. We, as educators, who may have something to do with this policy, should use no other justification for recommending its elimination. Occasionally, one sees articles or hears statements to the effect that married women are as good as, or better than, single women in the teaching field. This point is not debatable and in my thinking should be ruled out of the argument at this time. My board has asked me whether I think there are reasons for recommending that our policy be eliminated or that some of the restrictions be relaxed. When I asked them if they wished my reply to be based upon the supply of teachers, the answer was in the affirmative. You already know my reply. We have, however, decided to relax somewhat in individual cases where otherwise qualified teachers cannot be secured. There is no doubt that most school systems will change this policy within a few months. Because public pressure will again be exerted upon boards to relieve married women of their positions in postwar days, when the employment situation may again be a serious matter, boards would be wise in relaxing their policy for the duration of the war or so long as the employment situation would warrant.

"Colleges and universities are to be commended for the efforts they are making to offer intensive courses for the training or re-training of teachers, including those who have not been teaching for several years. Most of the institutions have agreed to do a tailor-made job of training teachers for the war emergency. There is no doubt but that this policy will be most helpful in supplying teaching candidates. *We hope it will not be necessary to lower standards.*

"Administrators and boards of education are faced also with the handling of positions left vacant by men and women entering the military service. Most boards are handling this matter liberally and are holding positions for such persons until they return from the service. There has been a divided opinion as to whether boards should ask for deferment of men in certain key teaching positions. These administrative problems are becoming serious and will grow more intensive as the war progresses."

##### 5. Budgeting of Administrative Time to Insure Effective Leadership

"The great variety of problems which have been presented to the school administrator since the schools began to participate in national defense in 1940 have prevented him

from spending as much time with the curriculum and supervisory problems of the regular day schoolwork. The administrator has been forced to budget his time in order not to overlook some of the important and necessary functions or he has decided to delegate some of these functions to others. The administrator in a fair-sized system must delegate in any event and the administrator in a small system should delegate duties to other persons. In fact, my theory is that an administrator is about as good as is his willingness and ability to delegate. However, when one delegates, he should give credit to the person who really does the work and here is where the catch comes with some of us. We are willing to delegate but the credit for the work done should be ascribed to us. The administrator must often accept responsibility to the public for acts which he has delegated to others, but due credit must be given to the one doing the work, if democratic administration is to be advanced.

"A large share of the additional duties assigned to the public schools in the cooperation with Federal Government in carrying on defense classes has been borne by the school administrators. Some teachers throughout the state have been assigned evening work for which they are well paid. Administrators of the school program have been assigned added duties which require a great amount of detail work. The time necessary to do the work comes from the regular school program without reimbursement. In cooperation with the Federal Government and the local Academy of Medicine, we have undertaken two new projects in health promotion. The first includes a thorough examination of all senior students. The second is an immunization program against diphtheria and smallpox. We could say that we do not have time for these programs and it would require little difficulty to prove the point. We could say that we have no time for other added duties. We could say "no" but we don't and we will not. Most of us realize that the schools are social institutions that seek every opportunity for service to youth and to our country. If we have meant what we said, then we will accept these additional responsibilities and obligations, and we will find time to do them."

##### 6. Administrative Problems of Instruction

Among the suggestions which were received by Mr. Norrix from teachers was one concerning the changes in business practices brought on by the war, which changes cannot be found in any textbook. Commenting on this problem Mr. Norrix concluded that "the content of many of the school courses is shifting rapidly, too rapidly for complete dependence upon textbook material. These are days which must cause dull headaches for textbook companies and writers of textbooks. Supervisors of instruction must lead teachers to depend less and less upon textbooks today and more and more upon current information in those courses dealing with current problems of human relations and social intercourse. The teacher feels that she is on much safer grounds when she can use material from textbooks that

have passed the scrutiny of publishers and the reading public. The teacher who undertakes to use materials from newspapers, magazines, and other sources of current information, is or feels that she is less secure in disseminating the information as factual evidence.

"There is, however, a new emphasis placed upon the instructional program of every secondary school in America in meeting its obligation in the indoctrination of young people in the principles of democracy. Every high school administrator is facing pressure from two sources. One is being exerted in the direction of the more practical courses which prepare youth in skills and semiskills useful in war production industries. The other is exerted in the direction of the preparation for the securing and maintaining of a peace, once an Armistice is declared."

In the report of a special committee, recently prepared by Mr. Dunham of the University of Michigan, and others, on "The High School's Obligation to Democracy," Mr. Dunham says: "In times of economic stress and strain, and especially in war, it is easy to emphasize the practical values of education, but difficult to maintain many of the spiritual, intellectual, and aesthetic values. Under these conditions, it is inevitable that the movement for vocational training should gain considerable momentum. The Federal Government, with good intentions, and unavoidably, no doubt, has entered the field of secondary education and provided subsidies for the support of programs in industrial and occupational training. And foundations, under leadership of specialists, have also given substantial financial aid for the promotion of vocational training. However noble may be the motives of these agencies, the fact remains that the objectives and values of secondary education have been thrown out of balance."

In his summary, Mr. Norrix said: "We all face a world in which the immediate aim, including the schools, is to win a war, with a more remote but none the less important aim of training a generation of people who will know how to maintain a peace. The military forces out in the fields and those to be placed in the fields will be able to do little more than win an opportunity for us to make another attempt at a peace. We must have a generation of young people prepared to understand this fundamental fact and who will be willing and prepared to accept the responsibility it involves.

"One of the greatest problems of the schools of the future will be to aid in removing certain basic and fundamental principles of democracy and international relations from a level of mere party politics and to place such issues on a plane which is above and beyond party issues. The future of our country and the world should not be left to decisions made by us at our annual elections. A good example of a step in the right direction was demonstrated in the last election campaign. Both major parties were in substantial agreement as to foreign policies. We must have more of this in the future when such fundamental principles as these are involved."

# The School-Board Member Looks at Statistics—VII R. L. C. Butsch<sup>1</sup>

A useful concept in modern statistical practice is that of comparable scores. It is made necessary by the fact that many tests, rating scales, and other measuring instruments used by educators result in scores or ratings which are not in themselves entirely meaningful. For example, a particular test or scale may be so constructed that the scores which will be earned by a normal group of students in a certain grade will run from, say, 5 to 30. Another test, in a different field, or even in the same field, may be so constructed that the scores earned by the same group of students will run from 90 to 220. Obviously, a score of 25 on the first test—since it is close to the maximum expected—will stand for a higher ranking than a score of 125 on the second test—which is near the minimum expected. The differences in the size of scores will be due to the simplicity or complexity of the test, to the number of questions included, to the time allowed in taking the test, to the amount of credit given for each question, and to other factors. None of these factors, in themselves, are vital to the trait or characteristic which is being measured. It is clear, then, that if the results of such measurement are to be interpreted correctly, some information in addition to the actual or "raw" scores—the scores earned by students on the scale employed by the test—must be given.

Conceivably, one might examine the complete distribution of scores earned by a particular group of pupils, or by the total number of individuals to whom the test or scale has been applied, as in the case of a standardized test. By such an examination, he might arrive at a correct interpretation of the value or significance of the score of a particular individual, or of the scores of a number of particular individuals. However, in this situation, as in others previously discussed, the statistician likes to express the results in a form more easily interpreted, and which has some sort of standard or commonly accepted meaning. There are a number of these commonly accepted methods of expressing the meaning of a particular score in such a way that it is unnecessary to know all of the facts about the distribution of scores of the group in order to make a correct interpretation. The common name of such a method of expressing the meaning of a score is by means of "comparable scores." Among the various kinds of comparable scores commonly used are included "Percentile Scores"; "Standard Scores" or "Z Scores"; "T Scores," and others.

## The Percentile Method

The use and interpretation of percentile scores can probably be made clear most easily by considering an actual example. In Table I are given the scores earned by a group of college freshmen on a particular test. In the third column are the cumulative frequencies—that is, the sum of all cases up to and including the particular class or score interval involved. For example, in the

first class interval, 110.0-119.9, only 1 case is found; in the next interval, 120.0-129.9, there are 2; therefore, up to and including the second interval, there are a total of 3. Similarly, up to and including the interval 160.0-169.9, there were 99 cases; in the next interval, 170.0-179.9, there were 46 more; therefore, up to and including the latter interval, there were a total of 145. The same procedure is used throughout the table. The last column of this table gives what are called the cumulative percentage frequencies. Thus, up to and including the interval last men-

TABLE I. Distribution of Scores Earned by 500 Students on a Test; Cumulative Frequency Distribution; and Cumulative Percentage Distribution

Class Interval [Scores]	No. of Students [Frequency]	Cumulative Frequency	Cumulative Percentage
270.0-279.9	2	500	100.0
260.0-269.9	4	498	99.6
250.0-259.9	10	494	98.8
240.0-249.9	18	484	96.8
230.0-239.9	30	466	93.2
220.0-229.9	42	436	87.2
210.0-219.9	50	394	78.8
200.0-209.9	61	344	68.8
190.0-199.9	76	283	56.6
180.0-189.9	62	207	41.4
170.0-179.9	46	145	29.0
160.0-169.9	40	99	19.8
150.0-159.9	32	59	11.8
140.0-149.9	17	27	5.4
130.0-139.9	7	10	2.0
120.0-129.9	2	3	0.6
110.0-119.9	1	1	0.2

Total..... 500 [Mean, 196.0; Sigma, 29.0]

tioned, there were 145 cases; since the total number involved is 500, and since 145 is equal to 29.0 per cent of that total number, or 500, it is said that the cumulative percentage frequency up to the top of that class interval is 29.0. Similarly, since there were 466 cases up to and including the interval 230.0-239.9, and since 466 is equal to 93.2 per cent of the total number, the cumulative percentage frequency to that point is 93.2. The remainder of the column is obtained in the same way—by dividing the cumulative frequency at each interval by the total number of cases.

There is now constructed a cumulative percentage frequency graph, based on the data of Table I, and shown in the left half of

Figure 1. It is to be observed that this is the same as the cumulative frequency graph explained in a previous article, except that the heights of the curve at the various points is referred to a percentage scale on the vertical axis. The cumulative frequency scale is also shown on the same axis for comparison. It now becomes clear that the percentage value of any score, or the score value of any percentage, may be read, at least roughly, from the graph. Thus it is seen, for example, that the 20th percentile point corresponds roughly to the point 170 on the horizontal axis. This percentage value corresponding to a particular score is spoken of as a "percentile rank." Therefore we would say that the score 170 has a percentile rank of 20. Or, inversely, we say that the "20th percentile" for this distribution is the score 170. This means that 20 per cent of the individuals included in the distribution had scores below 170. In the same way, since the score 225 corresponds roughly to the percentile value 83.0, we would say that 225 has a percentile rank of 83, and that the 83rd percentile is 225.

TABLE II. Distribution of Scores Earned by 500 Students on a Second Test; Cumulative Frequency Distribution; and Cumulative Percentage Distribution

Class Interval [Scores]	No. of Students [Frequency]	Cumulative Frequency	Cumulative Percentage
80.0-84.9	3	500	100.0
75.0-79.9	6	497	99.4
70.0-74.9	12	491	98.2
65.0-69.9	25	479	93.8
60.0-64.9	38	454	90.8
55.0-59.9	51	416	83.2
50.0-54.9	71	365	73.0
45.0-49.9	90	294	58.8
40.0-44.9	69	204	40.8
35.0-39.9	50	135	27.0
30.0-34.9	40	85	17.0
25.0-29.9	24	45	9.0
20.0-24.9	11	21	4.2
15.0-19.9	6	10	2.0
10.0-14.9	4	4	0.8

Total..... 500 [Mean, 47.5; Sigma, 13.0]

Of course, there is a mathematical procedure by means of which the exact score corresponding to any given percentile, and the exact percentile corresponding to any given score, may be computed. This procedure need not be explained here, since the purpose

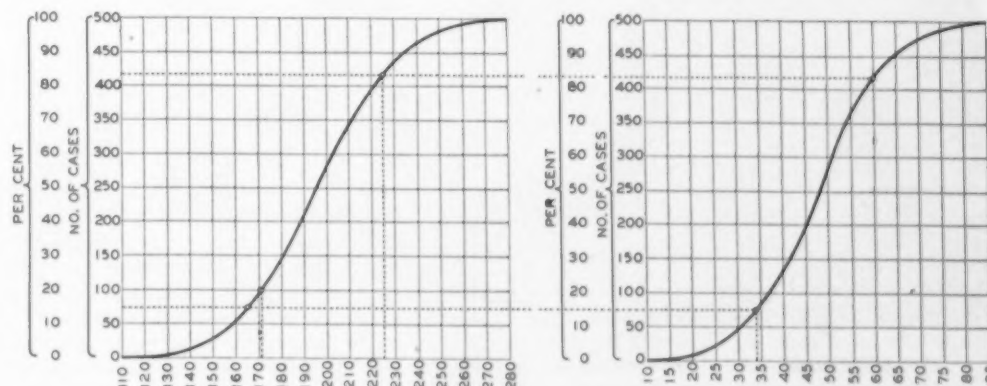


Fig. 1.

<sup>1</sup>Professor of Education, Marquette University, Milwaukee, Wis.

is only to show the meaning of the concept, and not the statistical techniques used in computation. It is true, however, that in many cases where it is desired to translate all scores of an entire group to approximate percentiles, a graph similar to Figure 1 is constructed—probably much larger, and on much finer graph paper—and the percentiles are read off as nearly as possible.

#### Comparing Scores on Two Tests by the Percentile Method

Part of the value of the percentile method consists in the fact that it may be used with any distribution, and in each case a given percentile score has the same significance. Thus, the 43rd percentile would mean that score, or point on the scale, below which 43 per cent of all individuals involved happened to fall—no matter what the actual scores might be. A further advantage is that scores earned on dissimilar tests may be compared directly when transformed into percentiles. Table II gives another set of scores, earned by the same 500 individuals, on an entirely different test. In this case, the lowest score is 10, and the highest is 89. If the same individual earned a score of 165 on the first test considered, and a score of 34 on the second test, it is not immediately clear whether he did better on the first, or on the second, or about the same on both tests. But when Figure 1 is consulted, it is discovered that his score of 165 is equivalent to a percentile of 15.8. By comparison with the right half of Figure 1, based on Table II, it is found that a score of 34 is roughly equivalent to a percentile of 15.4. Thus it is seen that this individual stood in about the same position on both tests.

Other similar comparisons may be made between the two graphs. Thus, the score of 225 on the first test was found above to be equal roughly, to a percentile of 83.0. By examining the second graph, it is found that the percentile 83.0 is equivalent to a score of about 60. In other words, one who earned a score of 225 on the first test did as well as one who earned a score of 60 on the second test. In the same way, for each score earned on either test there may be found a corresponding score on the other test which represents approximately—exactly, if done by formula—the same position in the group. Thus it is seen that the advantage of the percentile method is that it permits the translation of scores attained on various tests, scales, or other measuring instruments to values which will always have the same significance, irrespective of the range or nature of the original scores.

#### The Standard Score Method

While the percentile method is valuable, it is, after all, only a counting method, just as the median is a counting measure of central tendency. For certain purposes it is more desirable to use a more strictly mathematical method of obtaining comparable scores. In such cases the "Standard Score" or "Z Score" is frequently used—or other types of scores derived from the standard score. To illustrate the meaning of this type of score, the data of Tables I and II are used. The frequency distributions, shown in the second column of the two tables, are also represented in the two graphs of Figure 2. These graphs are of the type explained in the previous article, with the scores arranged on the horizontal axis, and the number of cases in each interval shown on the vertical axis.

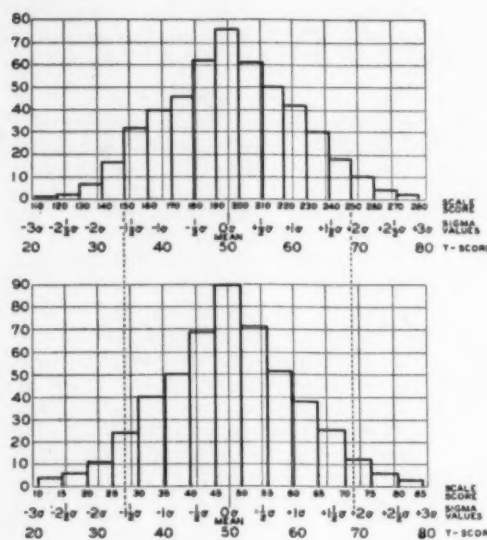


Fig. 2.

Attention is first called to the upper graph in Figure 2, based on the data of Table I. In the table it is indicated that the Mean of the distribution is 196.0. A line is therefore drawn through the graph, bisecting the horizontal axis at the score value 196.0. The table also gives the Standard Deviation, or Sigma, of the distribution as 29.0. Both Mean and Sigma, of course, have been computed by the use of the proper statistical procedures, as discussed in an earlier article. As stated in that article, the value of Sigma, or 29.0 in this case, is expressed in terms of the score or scalar values of this particular distribution. It, therefore, can be indicated on the graph. Thus, the expression "Plus 1 Sigma" means a distance on the scale above the Mean, and above the Mean by the amount of 1 Sigma. Since the value of Sigma in this case is 29.0, and the value of the Mean is 196.0, the point "Plus 1 Sigma" must coincide with the point on the graph of 196.0 plus 29.0, or 225.0. In the figure it has been so indicated.

By similar reasoning, other points corresponding to other values of Sigma, both above and below the Mean, may be indicated. Thus, the point "Minus two Sigmas" will correspond with the point 196.0 [the Mean] minus twice the value of Sigma [2 times 29.0]; or 138.0. The points on the scale which correspond to successive half values of Sigma, above and below the Mean, are as follows:

Values of Sigma	Plus	Minus
0 [the Mean]	196.0	196.0
$\frac{1}{2}$ Sigma	210.5	181.5
1 Sigma	225.0	167.0
$1\frac{1}{2}$ Sigma	239.5	152.5
2 Sigmas	254.0	138.0
$2\frac{1}{2}$ Sigmas	268.5	123.5
3 Sigmas	283.0	109.0

These six points above the Mean, and six points below the Mean, have all been indicated on the graph of these data, and are noted on a scale on the horizontal axis placed below the score scale.

By examination of the graph, it should be clear that there is here presented a scale which will be independent of the actual score values, but which will correspond to them. This scale also has the advantage that it is dependent on the exact score made by every individual in the distribution, since both the Mean and Sigma take into account, in their computation, the exact score of each case involved. By examining the two scales—the one for the scores on the test, and the one

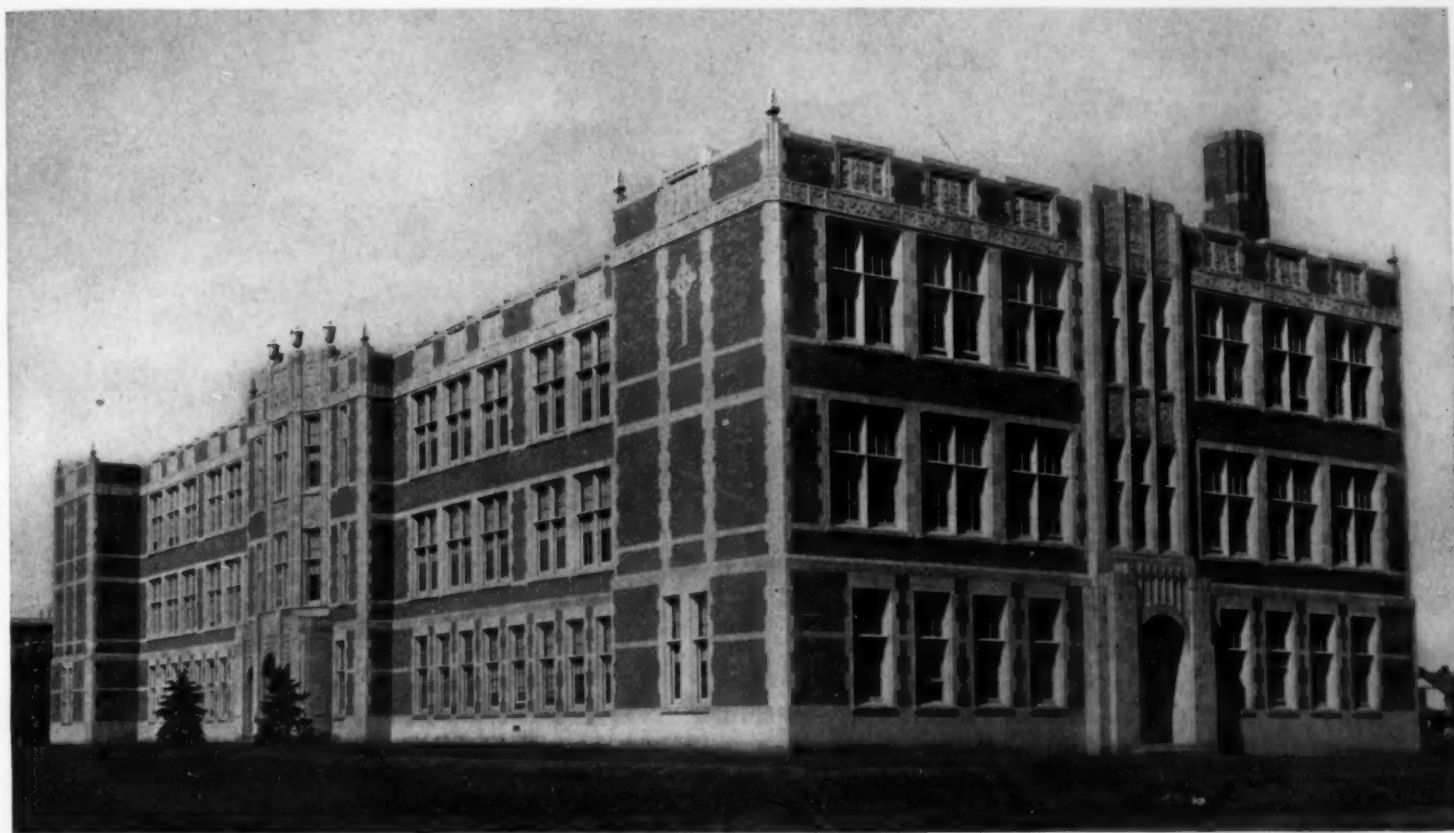
for Sigma values above and below the Mean—it is also clear that there will be a one-to-one correspondence between the two. That is, for every score on the score scale, there will be some value of Sigma—either plus or minus; either integral or decimal—which corresponds to it. In the same way, for every value of Sigma, there will be a score corresponding. Thus, for example, the score 250 corresponds to the Sigma value 1.86; similarly, the score 150 corresponds to the Sigma value —1.59. In actual practice, the Sigma values are found, not by reference to a graph, but by means of a formula; but this procedure need not be explained here. The graph is chiefly valuable in demonstrating the correspondence between these two types of scores. This kind of score, measured by the distance, in Sigmas, above or below the Mean, is called a "Standard Score," or, sometimes, a "Z Score."

Attention is now called to the lower graph of Figure 2, based on the scores of Table II. In this case, as in the first graph, the Mean [47.5] is indicated; also, the positions of the Sigma values, by  $\frac{1}{2}$  Sigma, above and below the Mean [Sigma was found, as indicated in the table, to be equal to 13.0]. In order to bring out more clearly the interpretation of these Standard Scores, this second graph has been made to correspond to the first in the location of the Mean, and of the positions of the Sigma values above and below the Mean. Thus, for example, it is seen that the position of plus 1 Sigma [Mean, 47.5, plus Sigma, 13.0] is 60.5; and that this point falls directly below the value 225.0, or plus 1 Sigma, on the upper graph. In other words, a score of 225.0 would be expressed by a Standard Score of 1.00 for the first distribution; and a score of 60.5 would be expressed by a Standard Score of 1.00 for the second. Similarly, a score of 123.5, on the first distribution, has a Standard Score of —2.50; on the second distribution, the score 15.0 has a Standard Score of —2.50. This Standard Score of —2.50 [or any other Standard Score] has a very definite significance, with respect to the relative position of a student earning it; and this significance remains, irrespective of the amount of the score actually earned on the test.

#### Translating Scores From One Scale to Another

This last mode of comparison leads to another type of comparable score which is sometimes used. If it happens that the statistician would prefer to have his scores in some form other than Standard Scores, he can readily transform them. Such preference may spring from the fact that the Standard Scores are both positive and negative, leading to some difficulty in use and interpretation. It may also be that he is accustomed to the interpretation of the scores earned on one test—say, that of Table II—but is not so familiar with the scores of the other test—that of Table I. In such a case he may wish to translate the scores earned by all students on the test of Table I into their equivalent scores on the test of Table II. The graphs in Figure 2 show readily how this may be done. It is only necessary to translate the scores first into Standard Scores, and then to find the scores in the second test which correspond to those Standard Scores. Of course, in practice, the procedure is facilitated by the use of a formula, which is beyond the scope of the present discussion. The graph shows what the results would be. Thus,

(Concluded on page 64)



The new Administration Building of the Lincoln Board of Education is a dignified structure finished in red brick and gray limestone and reflects beautifully the scholastic character of the activities carried on within its walls.

## How Lincoln Obtained a School Administration Building J. G. Ludlam<sup>1</sup>

In the development of a modern school plant for the children of Lincoln, Neb., the final step taken by the board of education has been to provide a modern home for the administrative offices. Over a period of 25 years the board has been engaged in erecting modern schoolhouses in order that every child may enjoy the advantages of a balanced educational program, offered in well-planned, safe, and comfortable schoolhouses. During all of this time the board and its executive officers thought last and least of themselves, and the administrative offices were housed in old schoolhouses of inferior design and construction and planned originally for class purposes only.

A combination of apparently remote circumstances has now made it possible for the board to take the final step of completing its modern plant, all without additional expense for building operation. The new school administration building, which rounds out the program, has been completed and will be operated with an actual decrease in total building operating costs.

### Circumstances Leading to Building

First, Lincoln has long been in need of a civic auditorium to provide satisfac-

tory accommodations for numerous conventions held in the community. In 1939, and again in 1941, the voters authorized

the municipality to acquire a suitable site and to build a modern auditorium. For this purpose the city desired particularly

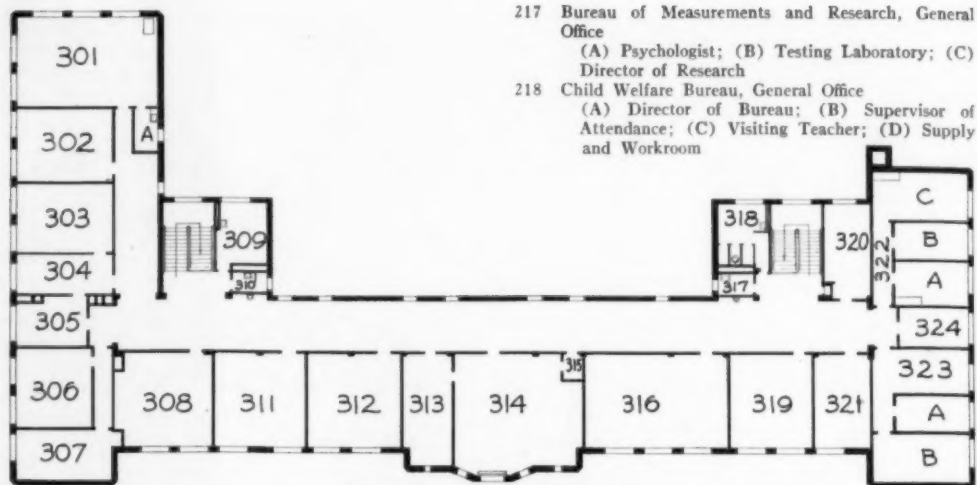


The art supervisor's office provides space for extensive displays of work produced in the classes. It serves also for conferences and demonstrations in which the teachers participate.

<sup>1</sup>Business Manager, Board of Education, Lincoln, Neb.

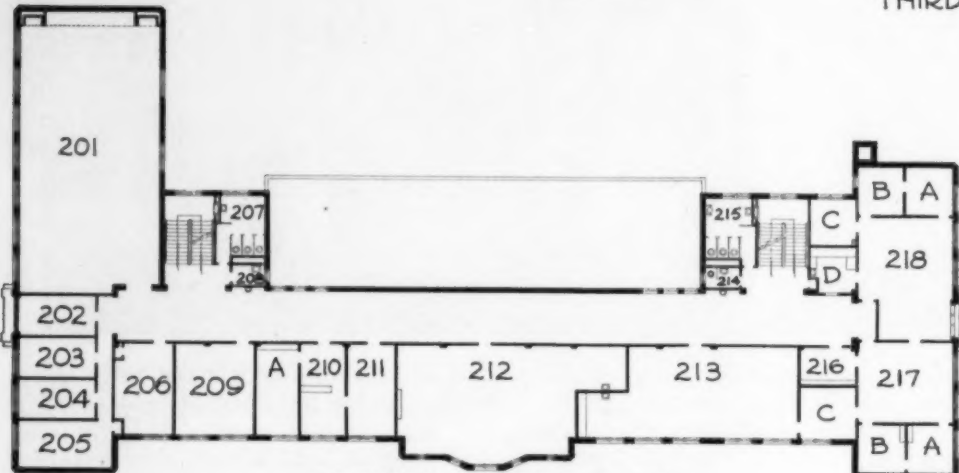
**Third Floor**

- 301 Classroom, Extension Education
- 302 Classroom, Extension Education
- 303 Classroom, Extension Education
- 304 Classroom, Extension Education
- 305 WPA Project Supervisor Extension Education
- 306 Classroom, Extension Education
- 307 Classroom, Extension Education
- 308 Classroom, Extension Education
- 311 Classroom, Extension Education
- 312 Classroom, Extension Education
- 313 Visual Education Room
- 314 Visual Education Room
- 316 Faculty Room
- 319 Supervisor of Household Arts, Ass't Director of Lunch Rooms
- 320 Dir. Vocational Education, Supv. Industrial Arts, Gen. Office
- 321 Supv. Physical Education, Supvs. Secondary Music
- 322 (A) Supervisor Industrial Arts; (B) Apprentice Co-ordinator, NYA Guidance Counselor; (C) Supv. Co-ordinator Distributive Education, Ass't Supervisor Distributive Education



THIRD FLOOR PLAN

- 217 Bureau of Measurements and Research, General Office  
(A) Psychologist; (B) Testing Laboratory; (C) Director of Research
- 218 Child Welfare Bureau, General Office  
(A) Director of Bureau; (B) Supervisor of Attendance; (C) Visiting Teacher; (D) Supply and Workroom



SECOND FLOOR PLAN

- 323 Adult Homemaking, General Office  
(A) Supervising Director Adult Homemaking;  
(B) Supervisor NYA Activities
- 324 Director Vocational Education

**Second Floor**

- 201 Assembly Room
- 202 Conference Room
- 203 Conference Room
- 204 Conference Room
- 205 Parent-Teacher Association
- 206 Lincoln Teachers Association
- 209 Supervising Director Extension Education
- 210 Director Elementary Education, General Office  
(A) Supervisor Elementary Music
- 211 Director Elementary Education
- 212 Supervisor of Art
- 213 Teachers Professional Library
- 216 Bureau of Measurements and Research, Supply Room

**First Floor**

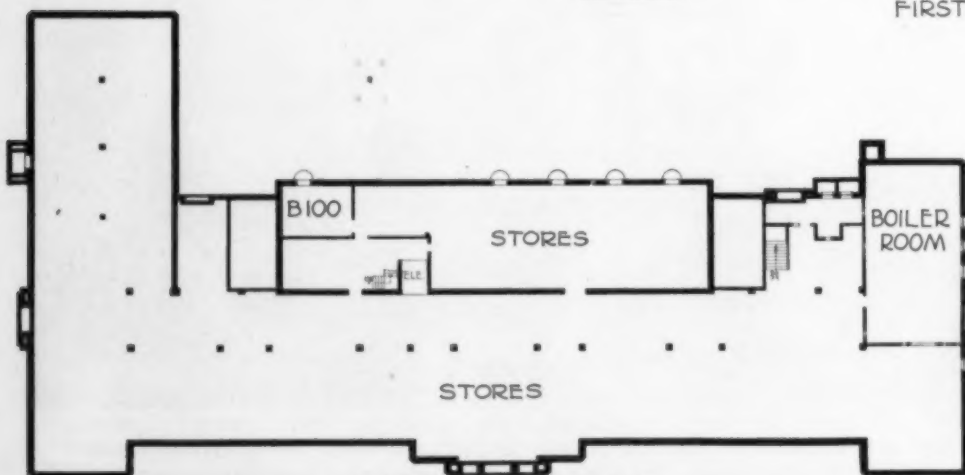
- 100 Board of Education Room
- 101 Secretary, General Office  
(A) Secretary; (B) Accounting Office; (C) Accounting Machines; (D) Mimeograph and Supply Room; (E) Ass't to Secretary; (F) Vault extending to basement
- 102 Superintendent  
(A) Mail Room; (B) Mimeograph Room; (C) Information and Files; (D) Ass't Secretary to Superintendent; (E) Assistant to Superintendent
- 104 Stores Department, General Office  
(A) Director, Stores and Transportation
- 105 Waiting Room, Superintendent's Office
- 106 Storeroom and Repair Room for Visual Education Equipment
- 107 Rest Room
- 108 Rest Room
- 109 Assistant Superintendent
- 111 Assistant Superintendent, General Office
- 112 Treatment Room, Health Department
- 113 Health Department, General Office  
(A) Office of School Physician; (B) Supplies;  
(C) Nurses' Room
- 114 Purchasing Dept., Operation and Maintenance, Gen. Office  
(A) Foreman of Operation; (B) Ass't Supt., Purchasing, Operation and Maintenance; (C) Workroom; (D) File Room

**Basement**

- 100 (B) Textbook Supply Office



FIRST FLOOR PLAN



BASEMENT PLAN

the location of the then used school-board offices, located in what will eventually become a magnificent civic center development connecting the State Capitol with the University of Nebraska.

Second, one of the Lincoln elementary school buildings, the first to meet modern standards for safety and sanitation, is located in an area which has been gradually taken over by the expanding campus of the university. The enrollment decrease in this school has been rapid, and by 1940 it reached a point that made the closing of the building desirable. The pupils were accordingly housed in adjacent schools, and the university purchased the land and the building.



Mr. J. G. Ludlam, secretary of the Lincoln board of education, at his desk from which he directs the business administration of the school system.



Dr. M. C. Lefler, superintendent of the Lincoln schools, has executive charge of a well-balanced and modern American city school system.

Third, in 1931, the Catholic Diocese of Lincoln began the erection of a diocesan high school on a site adjoining one of the Lincoln public high schools. The onset of the depression, however, made it impossible for the diocese to complete the building, and the structure which was ready to be enclosed, was left unfinished for a period of nearly 10 years.

#### Why a New Administration Building

The buildings heretofore used by the board of education for administrative offices, for stores of materials and supplies, for the maintenance shops, and for extension classes were not at all adapted to these purposes. Three separate buildings, erected for regular school purposes in 1872, 1897, and 1904 were used by the board primarily because the school population had moved away from the older centers and it was possible to provide better housing elsewhere for the limited number of pupils in the districts served. The old buildings were poorly arranged, expensive to operate, and wasteful of the time of the executives. The board was accordingly quite ready to sell these buildings and to centralize all its administrative functions in a single building.

Utilizing the chain of circumstances described above, the board (1) sold the property desired for the city auditorium, (2) sold to the university the elementary school wanted for university purposes, and (3) purchased from the Diocese of Lincoln the uncompleted high school building.

The structure thus obtained is of such design and construction that it could be readily transformed into a satisfactory school administration building. Except for doors and windows, the building was com-

pleted, and the roof and concrete floor slabs were all in place. Boilers, steam pipes, conduits for electric wiring and plumbing, excluding fixtures, were in place. The building was well constructed and showed no appreciable depreciation. All of the interior partitions were in place but were unplastered. It was, therefore, possible to make all the necessary changes in room arrangements and to complete the plumbing system, steamfitting, and electrical work at a very moderate cost.

Funds for the completion of the building

were readily available from the receipts on the sales of the properties to the city and to the university. The funds thus available included not merely the purchase of the church school property but also the completion of the building and the grading of the grounds. The building was completed for occupancy in December, 1941.

#### What Building Contains

The new administration building is known as the Public Schools Administra-

(Concluded on page 63)



The teachers library is a center for displays of textbooks and professional literature.

## THE AMERICAN School Board Journal

A Monthly Periodical of School Administration

Edited by

Wm. Geo. Bruce and Wm. C. Bruce

### Greater War Effort in the Schools

THE schools of Baltimore, Los Angeles, Wichita, Seattle, Detroit, San Diego, and of numerous cities important, but less conspicuous in war production, have given impressive evidence of the ability and willingness of the schools to make a contribution to the Nation's war effort.

The experience of these cities indicates the necessity of the greatest alertness on the part of the school executives and of the school boards. In each of the major defense area cities and in numerous other communities, the problems have been staggering and have required vast initiative, keen judgment, and great management ability. More than that, numerous plans for school plant and personnel adjustments have required complete reversals of school policy and precedent, and continuous readjustment to new orders from Washington, to new social and economic situations, to new plant and teaching personnel problems, and to new instructional and safety measures for the children.

It is becoming evident that while the schools have made a magnificent beginning, it is only a beginning. The Nation is not yet at top speed in the war effort and it is not clear just which further measures must be taken to increase and service the armed forces, to raise production for war purposes, to finance the war, and to assist in all ways necessary to assure victory and to make permanent the ensuing peace. It is, therefore, only good sense and good administration for the school boards and their professional executives to be on the alert for further modifications in the requirements for the direct services of education and for the specialized extraschool services of the school staffs.

Some hints of things to come are given in the statements of the Office of Education pointing to the need of educationally salvaging 250,000 or more young men who cannot be used in the armed forces because they have not reached a fourth-grade level of academic achievement. Constantly growing numbers of adults require re-education for civic and

occupational readjustment, due to the demands of the war industries and the partial discontinuance of nonessential types of occupations. When fall comes, new types of courses for conditioning high school students for entrance into the military and civilian services, and for preparing all children for the new air-transportation age, will be needed. What new forms of rationing and civilian defense aid and what new personal services teachers will be expected to give is not yet clear. That such services will be necessary is not hard to predict.

In brief, the school boards must hold themselves, their executives, and their entire staffs in instant readiness for new adjustments, for increased sacrifices, and for new and higher levels of educational efficiency.

### Education for Better Inter- American Relations

THERE is little hope that the vast amount of material which is being written and said about better Pan-American relations will bear fruit until American boys and girls are educated to understand and to respect our neighbors to the south.

Central and South America have within their limits the possibilities of the greatest development—human, economic, and political—which the twentieth century will experience. Argentina is making most rapid progress, and Brazil, Peru, and Chile are not far behind. Together with the United States, these countries can develop strength and wealth for the democratic idea in government and life that will carry before them the nations of Europe, if not of the world.

Teaching our boys and girls the importance of Pan-Americanism is a task which the schools must attack with an energy paralleling the teaching of aerodynamics. And for genuine success, there must be more than a study of Spanish and Portuguese, more than a superficial knowledge of political conditions, more than a smattering of the commercial geography of the South American Continent. Closer relations can only be effected when we drop the superior attitude assumed by many of our commercial travelers, by some of our writers, and by many of our historians and social science teachers.

South American culture has deep roots in Spanish racial origins, in its historic life, its religion, its customs. This culture must be understood and genuinely respected if we are to develop common ideals and purposes that can be agreed upon, worked for, and fought for. The spiritual strength of South America and its ideals of peace are vast and admirable and will

be an enormous help in the democratic world movement. American boys and girls should be educated to fully understand South Americans, their countries, their culture, and their high ideals.

### Problems Attending a Declining School Attendance

INFORMATION from various sections of the country indicate that school registration is continuing a disheartening drop. In the large centers the reaction to the declining birth rate since 1937 is not well evident.

Other causes of decline are at work. More particularly in the industrial centers, the war industries have torn away high school boys and girls by the thousands. The Army and Navy have taken a goodly share for immediate service in the combat forces. Even the shortage of farm labor has drawn on the high schools of the rural areas and villages.

In meeting the problems of adjustment to the decline, school boards have been confronted by inertia and passive resistance from within and by open opposition from without. Teachers and janitors faced with possible dismissal have done whatever they could to prevent the consolidation of reduced classes and the closing of partially occupied buildings.

The outside resistance has come largely from parents who object to greater travel distance for children to and from school. Some of the worst outcry has come from "alumni" organizations and political factors who have set up emotional appeals quite unrelated to educational and health values of the old schools.

The job of closing down outworn and unneeded school plants is completely the responsibility of the school board. The superintendent and business manager should not be expected to carry the burden of the opposition. The rules and policies of the school board should be so clear cut and compelling that the professional executives have no choice in action. All criticism from teachers and patrons should be referred automatically through the usual channels to the board.

In times like the present, it is well to remember that the continued operation of partly vacant schools is a double drain. Even though rooms may be closed up, there are almost unseen wastes in operating overlarge heating plants, in cleaning and lighting partially used corridors and stairs, and in maintaining plumbing and ventilating apparatus. The secondary drain from such a situation affects the war effort in that both the wasted personnel and fuel are sorely needed in other essential public services.

### A Tribute to Dr. Deffenbaugh

THE announcement is made by the United States Office of Education that Dr. W. S. Deffenbaugh, Chief of the Division of American School Systems, retired on June 30, after a long period of service to the schools of the Nation.

The name of Dr. Deffenbaugh has become a familiar one to all concerned in the problems of city school administration. His labors have brought him in touch with every phase of the structure designed to control the country's system of popular education. He not only has evidenced a deep understanding of the scope and duties of boards of education, superintendents, supervisors, and teaching personnel, but he has exerted far-reaching influence for raising the efficiency of these factors and for bettering their relations and functions. While he assembled and collated facts and data which related to school-administrative activities, he actively supported a higher quality of administrative service and made valuable contributions to the growing efficiency which has characterized the administration of the American schools.

While a note of sadness comes to those who contemplate Dr. Deffenbaugh's retirement from the public service, there is also a comforting thought that he left his impress upon the American schools. And thus we say to him: "There must come to you the consciousness that your public career service has found nation-wide acceptance and has been of inestimable value to the educational progress of your time and day. And here is the real compensation which comes to every man who has led a useful life. You have done your share of the world's work, faithfully and well, and have added to the sum of human happiness."

### Free Samples of Textbooks

THE practice on the part of teachers to request samples of textbooks has given rise to discussion as to the ethics involved in such requests. The publisher of textbooks who has frequently been the victim of this practice is not likely to enter into an open protest. The subject is a delicate one in that he cannot tell who is legitimately entitled to free copies and who is not. He stands ready to provide free samples where a prospective sale of this product warrants such a course.

Publishers, however, have found that a generous compliance with requests for sample books is an extremely costly business burden. Hence, he becomes cautious and wonders whether the individual applicant is sincere or merely looking for something to gratify his curiosity.



KNOWLEDGE IS POWER; THE TRUTH SHALL MAKE YOU FREE

A writer in the *Kentucky School Journal*, in a recent article, illustrated the cost likely to be involved in a ready compliance with requests for sample textbooks. He says: "There are approximately 230,000 elementary schools in the United States. Let us assume that in each school there is a teacher of health. If the teachers in one tenth of the schools were to request sample copies of a health series of six books, the cost to the publisher in complying with the requests (at an average price of 75 cents per book), would be more than \$100,000, plus postage. And the health course is only one of many courses in the elementary school curriculum."

The writer suggests that publishers give no sample copies unless the request is approved by the principal or the superintendent. He further shows to what length unscrupulous book collectors may go and the remedy that might be applied. He adds:

There is a solution though, which should work and will, if teachers are conscientious in their consideration of what has grown to be a serious problem. The burden of responsibility should rest upon the individual, since in all fairness, justice, good sense, and honesty, every teacher knows whether his request for a sample copy of a textbook is a legitimate one. If he intends to examine the book with a view to considering it for adoption as a class text he has a perfect right to request an examination copy. If, however, as is often the case, the teacher simply asks for the book to add to his reference list or to increase his library the request is not legitimate. Too often we have heard of cases of teachers, and even school executives, who have disposed of their sample books to jobbers. There are jobbers who make a practice of going through the country visiting schools and buying up sample copies. If a teacher would bear in mind that every time he sells a sample copy he is cheating the publisher out of a sale and the author out of his royalty, and thereby lessening the publisher's ability to serve the cause of education, he would think twice before asking for unnecessary samples and disposing to a dealer even samples secured legitimately.

## THE AMERICAN School Board Journal

A Monthly Periodical of School Administration

Edited by

Wm. Geo. Bruce and Wm. C. Bruce

### Greater War Effort in the Schools

THE schools of Baltimore, Los Angeles, Wichita, Seattle, Detroit, San Diego, and of numerous cities important, but less conspicuous in war production, have given impressive evidence of the ability and willingness of the schools to make a contribution to the Nation's war effort.

The experience of these cities indicates the necessity of the greatest alertness on the part of the school executives and of the school boards. In each of the major defense area cities and in numerous other communities, the problems have been staggering and have required vast initiative, keen judgment, and great management ability. More than that, numerous plans for school plant and personnel adjustments have required complete reversals of school policy and precedent, and continuous readjustment to new orders from Washington, to new social and economic situations, to new plant and teaching personnel problems, and to new instructional and safety measures for the children.

It is becoming evident that while the schools have made a magnificent beginning, it is only a beginning. The Nation is not yet at top speed in the war effort and it is not clear just which further measures must be taken to increase and service the armed forces, to raise production for war purposes, to finance the war, and to assist in all ways necessary to assure victory and to make permanent the ensuing peace. It is, therefore, only good sense and good administration for the school boards and their professional executives to be on the alert for further modifications in the requirements for the direct services of education and for the specialized extraschool services of the school staffs.

Some hints of things to come are given in the statements of the Office of Education pointing to the need of educationally salvaging 250,000 or more young men who cannot be used in the armed forces because they have not reached a fourth-grade level of academic achievement. Constantly growing numbers of adults require re-education for civic and

occupational readjustment, due to the demands of the war industries and the partial discontinuance of nonessential types of occupations. When fall comes, new types of courses for conditioning high school students for entrance into the military and civilian services, and for preparing all children for the new air-transportation age, will be needed. What new forms of rationing and civilian defense aid and what new personal services teachers will be expected to give is not yet clear. That such services will be necessary is not hard to predict.

In brief, the school boards must hold themselves, their executives, and their entire staffs in instant readiness for new adjustments, for increased sacrifices, and for new and higher levels of educational efficiency.

### Education for Better Inter- American Relations

THERE is little hope that the vast amount of material which is being written and said about better Pan-American relations will bear fruit until American boys and girls are educated to understand and to respect our neighbors to the south.

Central and South America have within their limits the possibilities of the greatest development—human, economic, and political—which the twentieth century will experience. Argentina is making most rapid progress, and Brazil, Peru, and Chile are not far behind. Together with the United States, these countries can develop strength and wealth for the democratic idea in government and life that will carry before them the nations of Europe, if not of the world.

Teaching our boys and girls the importance of Pan-Americanism is a task which the schools must attack with an energy paralleling the teaching of aerodynamics. And for genuine success, there must be more than a study of Spanish and Portuguese, more than a superficial knowledge of political conditions, more than a smattering of the commercial geography of the South American Continent. Closer relations can only be effected when we drop the superior attitude assumed by many of our commercial travelers, by some of our writers, and by many of our historians and social science teachers.

South American culture has deep roots in Spanish racial origins, in its historic life, its religion, its customs. This culture must be understood and genuinely respected if we are to develop common ideals and purposes that can be agreed upon, worked for, and fought for. The spiritual strength of South America and its ideals of peace are vast and admirable and will

be an enormous help in the democratic world movement. American boys and girls should be educated to fully understand South Americans, their countries, their culture, and their high ideals.

### Problems Attending a Declining School Attendance

INFORMATION from various sections of the country indicate that school registration is continuing a disheartening drop. In the large centers the reaction to the declining birth rate since 1937 is not well evident.

Other causes of decline are at work. More particularly in the industrial centers, the war industries have torn away high school boys and girls by the thousands. The Army and Navy have taken a goodly share for immediate service in the combat forces. Even the shortage of farm labor has drawn on the high schools of the rural areas and villages.

In meeting the problems of adjustment to the decline, school boards have been confronted by inertia and passive resistance from within and by open opposition from without. Teachers and janitors faced with possible dismissal have done whatever they could to prevent the consolidation of reduced classes and the closing of partially occupied buildings.

The outside resistance has come largely from parents who object to greater travel distance for children to and from school. Some of the worst outcry has come from "alumni" organizations and political factors who have set up emotional appeals quite unrelated to educational and health values of the old schools.

The job of closing down outworn and unneeded school plants is completely the responsibility of the school board. The superintendent and business manager should not be expected to carry the burden of the opposition. The rules and policies of the school board should be so clear cut and compelling that the professional executives have no choice in action. All criticism from teachers and patrons should be referred automatically through the usual channels to the board.

In times like the present, it is well to remember that the continued operation of partly vacant schools is a double drain. Even though rooms may be closed up, there are almost unseen wastes in operating overlarge heating plants, in cleaning and lighting partially used corridors and stairs, and in maintaining plumbing and ventilating apparatus. The secondary drain from such a situation affects the war effort in that both the wasted personnel and fuel are sorely needed in other essential public services.

### A Tribute to Dr. Deffenbaugh

THE announcement is made by the United States Office of Education that Dr. W. S. Deffenbaugh, Chief of the Division of American School Systems, retired on June 30, after a long period of service to the schools of the Nation.

The name of Dr. Deffenbaugh has become a familiar one to all concerned in the problems of city school administration. His labors have brought him in touch with every phase of the structure designed to control the country's system of popular education. He not only has evidenced a deep understanding of the scope and duties of boards of education, superintendents, supervisors, and teaching personnel, but he has exerted far-reaching influence for raising the efficiency of these factors and for bettering their relations and functions. While he assembled and collated facts and data which related to school-administrative activities, he actively supported a higher quality of administrative service and made valuable contributions to the growing efficiency which has characterized the administration of the American schools.

While a note of sadness comes to those who contemplate Dr. Deffenbaugh's retirement from the public service, there is also a comforting thought that he left his impress upon the American schools. And thus we say to him: "There must come to you the consciousness that your public career service has found nation-wide acceptance and has been of inestimable value to the educational progress of your time and day. And here is the real compensation which comes to every man who has led a useful life. You have done your share of the world's work, faithfully and well, and have added to the sum of human happiness."

### Free Samples of Textbooks

THE practice on the part of teachers to request samples of textbooks has given rise to discussion as to the ethics involved in such requests. The publisher of textbooks who has frequently been the victim of this practice is not likely to enter into an open protest. The subject is a delicate one in that he cannot tell who is legitimately entitled to free copies and who is not. He stands ready to provide free samples where a prospective sale of this product warrants such a course.

Publishers, however, have found that a generous compliance with requests for sample books is an extremely costly business burden. Hence, he becomes cautious and wonders whether the individual applicant is sincere or merely looking for something to gratify his curiosity.



KNOWLEDGE IS POWER; THE TRUTH SHALL MAKE YOU FREE

A writer in the *Kentucky School Journal*, in a recent article, illustrated the cost likely to be involved in a ready compliance with requests for sample textbooks. He says: "There are approximately 230,000 elementary schools in the United States. Let us assume that in each school there is a teacher of health. If the teachers in one tenth of the schools were to request sample copies of a health series of six books, the cost to the publisher in complying with the requests (at an average price of 75 cents per book), would be more than \$100,000, plus postage. And the health course is only one of many courses in the elementary school curriculum."

The writer suggests that publishers give no sample copies unless the request is approved by the principal or the superintendent. He further shows to what length unscrupulous book collectors may go and the remedy that might be applied. He adds:

There is a solution though, which should work and will, if teachers are conscientious in their consideration of what has grown to be a serious problem. The burden of responsibility should rest upon the individual, since in all fairness, justice, good sense, and honesty, every teacher knows whether his request for a sample copy of a textbook is a legitimate one. If he intends to examine the book with a view to considering it for adoption as a class text he has a perfect right to request an examination copy. If, however, as is often the case, the teacher simply asks for the book to add to his reference list or to increase his library the request is not legitimate. Too often we have heard of cases of teachers, and even school executives, who have disposed of their sample books to jobbers. There are jobbers who make a practice of going through the country visiting schools and buying up sample copies. If a teacher would bear in mind that every time he sells a sample copy he is cheating the publisher out of a sale and the author out of his royalty, and thereby lessening the publisher's ability to serve the cause of education, he would think twice before asking for unnecessary samples and disposing to a dealer even samples secured legitimately.

# Democratically Planned Salary Schedules for Non-Teaching Employees

W. H. Lemmel<sup>1</sup>

During the current school year, the board of education of Highland Park, Mich., has adopted three different salary schedules covering the nonteaching employees, the public school secretaries, and the administrative staff. A teachers' salary schedule was adopted in 1937. The significant thing about these three schedules is not that there is anything particularly new or original in them but that the affected groups themselves, over a period of approximately two years, studied the problems involved in making their schedules with the superintendent or a representative of his office, and from these findings proposed the schedules which in all cases had the unanimous approval of the group and were later adopted by the unanimous vote of the board of education.

## Secretaries' Salary Schedule

In presenting the secretaries' schedule to the board, Martha Robertson, president of the local Association of School Secretaries, said:

Since no salary schedule for office employees has ever been established by our board, the secretaries of the Highland Park board have been working for over two years on a salary schedule which would: (1) establish fair minimum and maximum salaries for the various positions; (2) classify the existing positions as to training required and as to responsibility; (3) make salaries in Highland Park comparable to those paid in the metropolitan area.

In a comprehensive report to the board, Miss Robertson pointed out that her group was presenting a schedule which was in line with salaries paid in comparable positions, both in industry and in comparable school districts in the metropolitan area, that the cost of the schedule was within the ability of the Highland Park School District to pay, and that the salaries set forth in the schedule were reasonable as compared with those provided for under the teachers' salary schedule.

Monthly Minimum	Monthly Maximum	Position	Yearly Maximum	Months Employed
\$80	\$125	Mimeograph Operator-Typist	\$1,500	12
		Switchboard Operator	1,250	10
\$80	\$145	Stenographers and Clerks		
		Junior and Senior High School Offices	\$1,668	11½
		Counselor's Offices	1,450	10
		Business Office	1,740	12
\$80	\$150	Miscellaneous Clerks		
		Nurse's Clerk	\$1,500	10
		Attendance Office Clerk	1,800	12
		Library Clerk	1,800	12
		Pay Roll and Miscellaneous	1,800	12
\$90	\$160	Secretarial Stenographers		
		Junior and Senior High School Office		
		Heads	\$1,840	11½
		Grade School Offices	1,600	10
		Instruction Department	1,920	12
		Junior College Office	1,600	10
\$100	\$170	Assistant Superintendent Secretary	\$2,040	12
\$100	\$190	Superintendent's Secretary	\$2,280	12

The report was signed by all the members of the secretarial salary committee and was unanimously approved by the board of education.

<sup>1</sup>Superintendent of Schools, Highland Park, Mich.

Position	Present Salaries	Minimum	93.75% Maximum	100% Maximum
Head Engineer—High School	\$2,620	\$2,600	\$2,812.50	\$3,000
Engineers	1,990	1,900	2,250	2,400
Head Custodian and Engineer	1,824	1,900	2,250	2,400
Head Custodian and Fireman at Angell and Thomson Schools	1,714	1,600	1,875	2,000
Fireman—Willard and Ferris Schools	1,552	1,600	1,687.50	1,800
Fireman—High School, Liberty School	1,780	1,800	1,875	2,000
Plumber	2,074	1,900	2,250	2,400
Electrician	2,074	1,900	2,250	2,400
Head Custodian—High School	1,792	1,800	2,062.50	2,200
Head Custodian—Ford, Willard, and Barber Schools	1,804	1,800	1,875	2,000
Assistant Head Custodian and Guard	2,068	1,600	**2,068	1,800
Custodian	1,552	1,500	1,687.50	1,800
*Matrons	1,000	750	**1,000	1,000
Laundryman	1,624	1,600	1,781.25	1,900
*Laundress	1,000	750	**1,000	1,000
Window Washer	1,804	1,800	1,875	2,000
Maintenance Foreman	2,608	2,600	2,812.50	3,000
Drivers	1,804	1,800	1,875	2,000
Head Painter	2,074	1,900	2,250	2,400
Painters	1,852	1,800	2,062.50	2,200
Finish Carpenter	2,074	1,900	2,250	2,400
Finisher	1,858	1,900	2,250	2,400
Glazier	2,074	1,900	2,250	2,400
Lockman	2,074	1,900	2,250	2,400
Mason	2,074	1,900	2,250	2,400
Plasterer	2,074	1,900	2,250	2,400
Roofer	2,074	1,900	2,250	2,400
Labor	1,672	1,400	1,687.50	1,800
Stockroom Manager	1,792	1,700	1,968.75	2,100
Carpenter	1,858	1,900	2,062.50	2,200

\*Employed for 10 months only.

\*\*These people are presently receiving more than the suggested 93.75 per cent maximum. In line with the board's policy they will not be reduced from their present rate.

1. The above schedule to apply only to regularly employed members of the Highland Park nonteaching staff. Extra help to be employed at prevailing hourly rates.
2. All employees with five or more years of service are to reach the maximum salary within two years. Increases to begin July 1, 1942.
3. Increments shall be at the rate of 1/5 the difference between the minimum and maximum salaries.

4. The above schedule shall apply to regular employees working a 40-hour work week.

5. This schedule with its minimum and maximum is to be considered the basic salary schedule of the nonteaching employees and is to be altered in the same proportion as the schedules of other employees of the board.

## Nonteaching Employees' Salary Schedule

In presenting the request for a salary schedule to the board, Ivan Tietz, president of the Nonteaching Employees Association and chairman of the salary committee, said:

During the past few months, the Nonteaching Employees Association has had a committee

below an adequate living standard in several instances. With this in mind, we have formulated a schedule which, in our opinion, is fair to the employees considering their duties, responsibilities, and skills involved, and at the same time is reasonable from the point of view of the board in asking salaries which are modest as compared with those paid by other employers both public and private.

You will find attached the schedule as formulated by this committee and which now bears the unanimous approval of the nonteaching employees with but one or two exceptions. Considering that there are nearly 100 nonteaching employees, it is our feeling that this is a very high rate of acceptance.

We fully appreciate that any deviation from an existing schedule may complicate the budgeting in order to meet the changes. In order to facilitate this budget adjustment, it is our suggestion that the jump to the new schedule be made over a two-year period, so that those on the present maximum will be on the new maximum in two years.

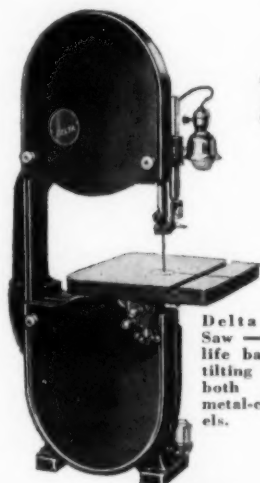
Prior to the adoption of the schedule, there was considerable unrest among the nonteaching employees and some perhaps justifiable belief that this group of employees was not being fairly dealt with in respect to salaries as compared with some of the other employees of the board. The general morale has vastly improved since the adoption of the schedule even though it does not become effective until July 1, 1942.

(Concluded on page 50)

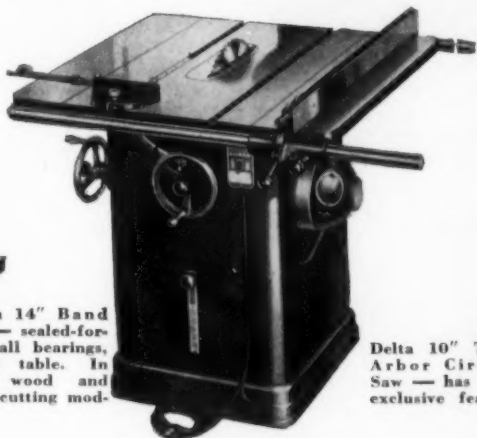
# How to Plan a School Shop



Delta 12" Lathe—equipped with sealed-for-life bearings, self-indexing headstock — ideal for school shops.



Delta 14" Band Saw — sealed-for-life ball bearings, tilting table. In both wood and metal-cutting models.



Delta 10" Tilting Arbor Circular Saw — has many exclusive features.



Delta 6" Jointer Unit — a compact, well guarded unit with dual control handle, patented fence and other special features.



Delta 17" Drill Press — has numerous special features. A full line of 11" and 14" models also available.



*...to meet the needs of Today - and Tomorrow!*

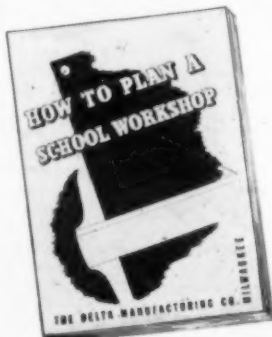
Any program for equipping new school shops — or modernizing old shops — must take into consideration the important changes that have taken place in the types of machines and in American industrial shops.

There has been a remarkable trend toward the increased use of low-cost, high quality machines in all branches of U. S. Industry. Tens of thousands of these relatively new type of machines are being widely used for both normal and defense production.

When peaceful days return, the many advantages of these machines — their low cost, flexibility, portability, low maintenance costs, will assure them a permanent place in our industrial economy.

Here is a real opportunity. Now it is possible to equip school shops with the same machines that industry uses today — and will use TOMORROW.

Everyone connected with vocational and industrial education should get the full details of this comparatively new development in the machine tool field.



**Send for School Shop Layout Book**

Free new shop layout book containing numerous photographs and floor plans of actual school shops submitted by vocational instructors from all over the country. Shows ingenious solutions of the problems of lighting, space, safety and efficiency.



THE DELTA MFG. CO.  
666-G E. Vienna Ave., Milwaukee, Wis.

Please send me a copy of the FREE Booklet "How To Plan a School Workshop" and your latest catalog of DELTA-Milwaukee machine tools.

Name .....  
School .....  
Address .....

**FIREPROOF  
HIGHLY EFFICIENT  
LASTING  
ATTRACTIVE  
LOW IN COST**

## Permacoustic

... the Johns-Manville ceramic acoustical material that meets every requirement for effective Sound Control

Educators today recognize the importance of good hearing conditions in every schoolroom. With J-M Permacoustic, correct sound control is possible for any room in any school, at low cost.

Installations are permanent, for Permacoustic is a ceramic product. It can't burn or rot, and is readily cleaned by conventional methods. Little maintenance is required. And its benefits in reduced nerve strain on teachers and pupils is too vital to overlook.

For details, write for brochure AC-16A. Johns-Manville, 22 East 40th Street, New York, N. Y.

NOISE QUIETING is but one of Permacoustic's many uses as a sound-control material for schools. Installation above is in library of E. J. Harrington School, Lynn, Mass.

ATTRACTIVE IN APPEARANCE, Permacoustic harmonizes with any decorative treatment—provides a finish of exceptional beauty and dignity.



**JOHNS-MANVILLE**  
PIONEERS IN SOUND CONTROL

### ADMINISTRATIVE SALARY SCHEDULE (Stated at 93.75 Per Cent of Established Schedule)

Classification	Period of Employment	Maximum — Teachers' Salary Schedule plus	Increments*	No. Persons in Classification
Assistant Principal.....	11 mo.	\$1,240	1½ per year	4
Assistant High School Principal.....	11 mo.	1,805	1 per year	1
Elementary Principal.....	11 mo.	1,805	1 per year	1
Secondary Principal and Dean of Junior College.....	12 mo.	2,257	1 per year	3
Administrative Assistant.....	12 mo.	2,257	1 per year	2
Assistant Superintendent.....	12 mo.	2,370	1 per year	1

\*An individual appointed to any of the above classifications and receiving a salary less than \$3,000 shall receive an increment recommended annually by the superintendent and approved by the board of education until a level of \$3,000 per year has been reached, at which time he shall advance at the rate established by the schedule.

NOTE: Increment as used above is \$113 a year and is given each year to all teachers and administrative employees until the maximum is reached.

(Concluded from page 48)

### Administrative Salary Schedule

In presenting the administrative salary schedule to the board the superintendent said:

The establishment of an orderly method of setting salaries of employees in an organization is generally considered a desirable policy. Without such a plan, the governing body must on each occasion when salaries are set weigh the merits of the individual employee and attach a value to his services. In an effort to accomplish this task more fairly and to eliminate all possible suggestion of discrimination against any person, salary schedules have been developed. Salary schedules provide an orderly means, by which an individual moves from his present salary to a maximum for his position, through a regularly established series of increments.

In Highland Park the board has already recognized this principle and has adopted the plan of having salary schedules. In 1937 they adopted the present teachers' salary schedule. During the current school year, a secretarial salary schedule and a nonteaching salary schedule have been adopted. There still remains a small group of employees, less than ten per cent, who are not yet under the provisions of a salary schedule. Members of the board have expressed the hope that all employees, including administrative employees, should have an orderly plan of promotion developed in the form of a schedule.

A series of tables was presented to the board showing that this schedule was in line with past practices in Highland Park and also in line with the salaries paid in comparable communities in the Detroit area. The schedule is written on an eleven- or twelve-month basis, depending upon the type of position. The lump sum provided in the schedule is that amount plus the amount which the administrative employees would be allowed under the teachers' salary schedule, which is \$2,700 for a master's degree, and \$2,813 for a doctor's degree.

The foregoing schedule presented to the board of education was signed by all affected administrative employees. This schedule was unanimously adopted by the board at its May meeting of 1942.

With the adoption of these three schedules, in addition to the teachers' salary schedule, practically all of the employees of the board of education are on a schedule which they themselves have assisted in formulating. A spirit of fairness and cooperation pervaded all of the meetings held within the various groups. The schedules apparently have met with general approval in the community and the superintendent has been relieved of the responsibility of interpreting all the details to the individuals affected.

### PERSONAL NEWS

● DR. WILL FRENCH, a member of the staff of Teachers College, New York City, has been given a leave of absence by the College for the year 1942-43, to permit him to serve as superintendent of schools in Long Beach, Calif. Dr. French, who will return to Long Beach at the close of the summer session at Teachers College, will take over the duties of superintendent during the absence of K. E. Oberholtzer who is on leave of absence for military service. It is expected that Dr. French will give a month of service during the year to his duties as director of the Division of Teachers College Schools and School Experimentation at the College.

● SUPT. L. W. FULTON, of Oconto, Wis., has been re-elected for a three-year term.

● Minneapolis, Minn. Upon the recommendation of Supt. N. B. Schoonmaker, the board of education has discontinued the office of supervisor of secondary schools. E. K. PECKHAM, who had carried on the duties of the office, will be transferred to another position in the instructional division.

# "DON'T TELL ME MAINTENANCE SOAPS ARE ALL THE SAME!"

**COLGATE-PALMOLIVE-PEET SOAPS SAVE IN 3 BIG WAYS!**

- 1-**THEY SAVE REFINISHING!**
- 2-**THEY SAVE WORK!**
- 3-**THEY SAVE MONEY!**

There are several good reasons why so many schools insist on C. P. P. Maintenance Soaps. One is the certainty that they're getting exactly the *right* soap for each cleaning job. Then there's the convenience of getting *all* their soaps from one source.

Most important, though, are the economies they effect. Many schools have found that C. P. P. Maintenance Soaps—1. Save expensive refinishing! 2. Save time and labor! 3. Keep cleaning supplies costs low!

Before you order your next supply of maintenance soaps, write for the Colgate-Palmolive-Peet "Soap Buying Guide." Or better, call in a cleaning expert from the C. P. P. Advisory Service. There's no obligation in either case, so write today!

**COLGATE-PALMOLIVE-PEET CO.**  
INDUSTRIAL DEPARTMENT, JERSEY CITY, N. J.

# PEABODY TEACHERS' DESKS

NOW READY FOR PROMPT DELIVERY

It's easy to get teachers' desks from Peabody because we have a full line of well designed, substantial desks ready to ship as soon as you wish them. The Peabody line of Teachers' Desks is composed of both flat top and rail top desks having 3 to 6 storage drawers and a wide top drawer.

If you need teacher desks for the coming semester, be sure to write us at once for complete details and prices on all types of Peabody Desks. We are prepared to fill all orders for desks promptly—however, shipments will be made in order received. Write for prices and details today.



DESK 326

## Use the PEABODY PLAN to CUT War-Time Seating Costs

Peabody Representatives Equipped to Help You

In order to keep your schools properly equipped with furniture that will conserve space, increase teaching efficiency and provide proper accommodations, Peabody suggests the following plan. Refinish present seating—repair broken desks—rearrange seats to increase capacity. Add new movable seats that can in-



No. 70

crease teaching efficiency. Use folding chairs with Peabody Tables to increase room capacity and flexibility. The Peabody representative will gladly help you in carrying out this plan. He is equipped to do necessary service work, supply needed repairs and give expert advice on seating arrangement and help you with necessary supplemental seating. Write us today for his name and address.

### FOLDING CHAIRS ONLY \$17.25 per dozen

The folding chair pictured at the left is Peabody Wood Folding Chair No. 70. It is strong, exceptionally comfortable, easy to fold and to store. Light in weight and the biggest chair value you can find. Order No. 70—the cost is \$17.25 a dozen, f.o.b. the factory. We can ship these chairs at once.



MOVABLE STEEL DESK No. 260

**PEABODY SEATING COMPANY, Box 1, North Manchester, Ind.**

## School Board News

### SCHOOL-BOARD AUTHORITY

Under the head of "Watch Your Step," the Montana School-Board Association calls attention to legal dangers which individual school-board members incur when they act without complete legal authority:

In discussing school districts, our Supreme Court has stated: "A school district is merely a political subdivision of the state, created for the convenient dispatch of public business."

The members of boards of trustees are elected by the people, or in the case of county high schools, appointed by the county commissioners, for the purpose of administering the affairs of such districts; to provide facilities for the education of all the children in the state.

For the most part trustees are awake to the responsibilities of the position, but each time the assembly meets we find more restrictive legislation being requested because some boards abuse the privileges of local autonomy, or because somebody fears legal authority will be exceeded.

Chief Justice Brantley, in speaking of the board of school trustees, said: "When put to the choice between acting without authority and pursuing the proper method to obtain it, they must refrain from acting until authority is obtained. The power to act without authority does not exist." (*State ex rel. Bean v. Lyons, et. al.*, 37 Mont. 354, 96 Pacific reporter 922.)

An attorney general of Montana has said that: "Where an officer, board, or commission acts, he or it must be able to point to the statutory authority granting such power or authority." It is apparent, therefore, that the argument "there is no law against it," cannot be successfully supported by a school board.

It will soon be time to adopt budgets for the next fiscal year. Make them according to the provisions of the law, as high or as low as the statutes and educational efficiency indicate, and then administer them in such a way that the children of your district will receive the greatest possible benefit.

### BOARDS OF EDUCATION

♦ Milwaukee, Wis. The city schools will eventually save \$41,000 annually, as a result of the Wisconsin public service commission's ratification of an agreement with the Electric Co., whereby the municipal rate will be charged on current supplied to the vocational school and 10 high and trade schools. The new rate will not become effective until certain safety devices and installations can be made and these are being held up by priorities and freezing orders.

♦ Watertown, Wis. The school board has adopted rules to govern the return of male teachers to the schools after the war is ended. Such teachers may be reinstated in their respective positions provided they have received an honorable discharge, that they are physically and mentally capable of carrying on their teaching duties, and that application for reinstatement has been made within 60 days after their honorable discharge.

♦ Savannah, Ga. The school board has issued new identification tags to the school children to be worn about the neck of each child as an emergency measure. Each tag contains the name of the child, the address, and the school attended.

♦ Richmond, Ga. The school board has decided to transfer rural teachers to the schools closest to their homes in order to help conserve their gasoline. It was explained that there would be no wholesale transfers but only an amelioration of cases where teachers are compelled to drive long distances to school.

♦ Dickson City, Pa. The school board has granted a leave of absence to John T. Tylanda, a school director, for the duration of the war.

♦ Wauwatosa, Wis. The school board has decided to conduct a survey to determine if a new policy should be adopted to insure uniformity in prices in school lunchrooms and cafeterias.

♦ Somerville, Mass. The school board has awarded diplomas to members of the graduating class who enlisted with the armed forces previous to May 15. The diplomas were given to members of the families of the boys.

♦ St. Louis, Mo. The board of education has voted to continue with its purchases of school supplies on an annual basis, pending permission from Washington that such procedure is permissible under war regulations. Under state statutes the board had been in the habit of purchasing supplies on a yearly basis, but a recent government order shortened the period to three months.

♦ Milwaukee, Wis. The public school buildings will be available for emergency shelter and hospital service in case of aerial bombardment, under a recent decision of the school board's building committee. Vacant schools will be used for storing cots and material needed in case of emergency evacuation of any part of the city.

♦ Springfield, Ill. The school board has approved salary increases for 85 employees, including custodians and assistants, women assistants, office employees, and firemen. The increases will cost the schools \$8,000 a year.

♦ Detroit, Mich. The board of education has decided to fingerprint every school child for identification purposes in case of air raids.

♦ Milwaukee, Wis. The school board has announced that business places which deal with the board and do not give satisfactory service will be placed on the "black list" and barred from bidding on contracts. The action was taken under a policy established by the board finance committee.

♦ Beaver Dam, Wis. A newly adopted rule of the board of education imposes a forfeit of \$50 upon any teacher who gives less than thirty days' notice of resignation. The cost of finding a substitute is to be met by the sum withheld.

**First girl: "My school course in calculating machine work got me quickly promoted to the payroll department."**

**Second girl: "I'm going to start that course next week. I don't want to stand still."**



**THE MONROE EDUCATOR  
HELPS STUDENTS TO  
FASTER PROMOTIONS**



Monroe machines predominate in the offices that your graduates are going out into. It stands to reason that these graduates of yours will be far more useful in business if they know how to operate Monroes. Furthermore, their machine courses give them a working knowledge of business arithmetic.

Schools having installations of Monroe Educators and other Monroe Adding-Calculators are meeting the demand created by the war emergency for graduates to fill wartime jobs where calculating machine experience is important. Call the nearest Monroe branch or write our Educational Department for further information in adapting your equipment and courses for war time instruction.

**MONROE CALCULATING MACHINE COMPANY, INC.**

**Educational Department, ORANGE, NEW JERSEY**



## BEFORE THE SCHOOL BOOKS ARE DISTRIBUTED NEXT SEPTEMBER . . .

Have them Protected and Reinforced with  
**HOLDEN BOOK COVERS**

Have each Teacher's Desk supplied with a Holden  
Outfit of Book Repairing Materials.

Protect music, literature, drawings and report cards by  
using Holden Portfolios and Report Card Envelopes.

**HOLDEN PATENT BOOK COVER COMPANY**

Miles C. Holden, President

Springfield, Massachusetts

### *Teachers' Salaries*

#### LEXINGTON SINGLE-SALARY SCHEDULE

The board of education at Lexington, Ky., has recently adopted a single-salary plan for all members of the teaching staff. The schedule provides a basal salary for all teachers amounting to \$950 per year, with differentials for training beyond the bachelor's degree, and increments for meritorious experience. The increases, computed on the basis of training experience, will increase the 1942 school pay roll by \$20,000. The largest pay increases will go to teachers in the lower salary brackets.

Under the schedule, teachers with A.B. degrees will start at \$950 per year and will advance at the rate of \$20, up to a maximum of \$1,660 at the end of 12 years. Teachers with an A.B. degree plus 15 hours of credit, will begin at \$960 and will advance at the rate of \$40, up to a maximum of \$1,680 after 12 years' of experience. Teachers with an M.A. degree will begin at \$1,010 and will advance at the rate of \$30, up to a maximum of \$1,720 at the end of 12 years.

The first three years of service will constitute a probationary period. Additional training differentials, or experience increments, or both, will be withheld during these years. Teachers at any point in the schedule may be placed upon probation upon the recommendation of the superintendent and the approval of the board.

Teachers employed for the first time in the schools will be credited with experience increments as recommended by the superintendent.

Teachers who do not possess a bachelor's degree may continue to receive the salaries paid at the time the schedule went into operation, but must wait for their increases until the degree has been obtained.

Increments for meritorious service will be given annually according to the schedule, until the maximums for the respective training levels have been reached. Teachers who give evidence of extraordinary ability and service may be moved up one or more steps on the experience scale. It is provided, however, that no teacher may be advanced more than one extra step at a time, nor more than two steps during any five-year period.

Under the rules, all additional training taken by a teacher must be of such a nature as will produce increased efficiency in the position which the teacher holds, or in a position to which he is to be transferred.

Any teacher may elect an undergraduate course having a direct bearing on the teacher's assignment, but the work must be planned to satisfy the requirements for a degree in case it is desired to attain training level C. The M.A. degree must have been obtained by the teacher before he or she can be placed on the training level C.

The board will recognize travel, research, or other activities engaged in with a view of increasing efficiency. All such work will be translated into an equivalent in terms of semester hours of credit.

Differentials for new training levels will be placed in effect at the beginning of a school year only. All teachers must submit evidence of having attained the required degree before September 15 of each school year.

Upon the recommendation of the superintendent, a special allowance will be given for research duties, special assignments, field or clerical work, coaching, census work, or other approved extra work.

In case there should be insufficient money to pay the salaries provided in the schedule, the board reserves the right to establish new schedules, or to order a uniform percentage reduction of all salaries.

#### TEACHERS' SALARIES

♦ Jackson, Mich. The school board has voted to revise the basic schedule to add \$50 a year to the compensation for each of the first two years' experience, and to create one additional bracket of \$50 increase for the eighteenth year.

♦ Hannibal, Mo. The school board has granted salary increases to teachers, totaling \$12,000.

♦ Barrington, R. I. The school board has given salary increases to teachers, ranging from \$100 to \$240. The schedule calls for the division of teachers into four classifications. The first three will receive increases of \$100 over a period of seven years, and the fourth comprising male teachers, will receive increases of \$100 over a period of 11 years.

♦ Warren, R. I. Salary increases of \$100 each have been given to all teachers and janitors.

♦ North Providence, R. I. A total of 57 persons, members of the school staff, have received increases of \$100 per year.

♦ Mankato, Minn. All teachers on the school staff have been given salary increases, ranging from \$50 to \$170 for the school year 1942-43. The salary scale aims to adjust salaries to the cost of living and provides adjustments for teachers whose salaries are below the maximums for their positions.

♦ Belleville, Ill. The grade school board has approved increases of \$100 for 83 teachers, beginning with the school year 1942-43. The board rejected a request for a \$100 adjustment for 1941-42.

♦ Granite City, Ill. The school board has approved a new salary schedule for 1942-43, providing for salary increases ranging from \$10 to \$25 per month, and totaling \$14,000 a year. Under the schedule, inexperienced teachers will start at \$125 per month, and experienced teachers will receive \$130 per month. Included in the minimum pay group are school cadets, who will

receiv  
Men  
cipals  
tion  
♦ C  
adopt  
43. 7  
begin  
mum  
at \$1  
♦ F  
to inc  
emph  
The  
funds  
sourc  
♦ T  
given  
for t  
a ser  
time  
♦ J  
have  
salary  
to ra  
five o  
\$15.0  
♦ N  
prov  
begin  
♦ B  
a pla  
salary  
this  
\$1.58  
per y  
Wom  
and  
reach  
♦ N  
the l  
in st  
Unde  
board

# *Now!* IS THE TIME TO BUY School Laboratory Furniture and SAVE . . .

If you are planning to buy School Laboratory furniture act now. Send in the coupon below for your copy of Hamilton's spring "Sale Catalog," AL Cat. 204, fully describing Hamilton Standard Wood Laboratory Furniture offered at a greatly reduced price.

## PROMPT SHIPMENT

Every item in this catalog is crated ready for immediate shipment. All items are subject to prior sale. Don't delay . . . investigate today . . . mail the coupon now.

**HAMILTON**  
*Laboratory and Vocational Furniture*  
TWO RIVERS, WISCONSIN

Please send me a copy of your Laboratory Furniture Spring Sale Catalog, AL Cat. 204 ASBJ-7-42

Name \_\_\_\_\_  
Position \_\_\_\_\_  
School \_\_\_\_\_  
Address \_\_\_\_\_  
City and State \_\_\_\_\_

receive \$115, or an increase of \$15 per month. Men teachers who are married, and men principals, will receive \$10 per month extra, in addition to the above increases.

♦ Casper, Wyo. The board of education has adopted a new salary schedule for the year 1942-43. Teachers without a degree will receive a beginning salary of \$1,260 per year, with a maximum of \$1,910. Teachers with degrees will begin at \$1,460 and work up to a maximum of \$2,100.

♦ Fairfield, Ala. The school board has voted to increase the salaries of all teachers and school employees 10 per cent for the next school year. The increases were made possible by additional funds obtained from state, county, and local sources.

♦ Tuscaloosa, Ala. All teachers have been given increases of 10 per cent or more in salary for the next year. The schools have experienced a serious loss in teacher personnel, due to wartime conditions.

♦ Joliet, Ill. All teachers and school employees have been notified that they will receive general salary increases. The board has approved a plan to raise the tax rate of the educational fund five cents, which will give the fund an additional \$15,000 yearly.

♦ Norway, Mich. The school board has approved increases of \$75 per year for all teachers, beginning with the second semester.

♦ Boston, Mass. The school board has approved a plan, providing for an increase in the beginning salary of men teachers from \$1,344 to \$1,584 this year. All men teachers will now start at \$1,584 and will advance at the rate of \$144 per year until they reach the maximum of \$2,592. Women teachers will continue to start at \$1,344 and will receive \$96 more each year until they reach \$2,400.

♦ Newburyport, Mass. School employees in the lower salary brackets will be given increases in salary amounting to approximately \$3,400. Under a plan prepared by Donald L. Page, the board has provided \$2,800 in permanent raises

and \$600 in raises for the duration of the war, the latter to go to department employees, including office workers and janitors.

♦ Chattanooga, Tenn. The board of education has announced that a saving of \$30,000 has been effected in its budget for 1941-42. This surplus will be passed on in the form of salary increases to the teachers, principals, and janitors.

♦ Newport, R. I. The school board has given increases of \$50 each to 63 elementary-school teachers.

♦ Crete, Ill. The school board has given all members of the teaching staff an increase of ten per cent above the basic salary, as compensation for increased living costs.

### THE TEACHER SUPPLY IN 1943

The American Council of Education has completed a survey of the institutions of higher learning in an effort to learn the supply of professionally trained man power which would become available during 1942 and early 1943.

The survey sought to determine the number of undergraduate students who would be graduated during the year trained for 103 occupations listed by the roster; the number of graduate students available for full-time employment in the same occupations during the year; an estimate of the shortage or surplus of professional man power in teaching, research, and administrative staffs; and a listing of the special facilities of the institutions for instruction in subjects related to war.

A total of 921 colleges, universities, and technological schools responded to the questionnaire. In these institutions it is estimated that 172,000 young men and women will become available for employment by January, 1943. The colleges have compacted their courses. One school has delivered to industry twice its usual number of trained youth, in 16 months less time. The three-term collegiate year has been substituted for the semester system, and vacations have been short-

ened or dropped entirely. Due to these changes, young people have become available for employment at a steadier rate during the year, and with graduation over and passed, there will be a more even flow of trained persons from the colleges to industry or to the government.

### TEACHERS

♦ The Minneapolis League of Women Voters, in a letter to Lynn Thompson, president of the Minneapolis board of education, has protested against the proposed discharge of 62 teachers on the basis of juniority. The League has suggested that the dismissals be made on a basis of ability and physical efficiency.

♦ New Orleans, La. The Orleans Parish school board has voted to increase its contribution to the teachers' retirement fund, from 5.37 to 5.46 per cent. The action was taken in order to permit no discrimination against members of the New Orleans Retirement Fund.

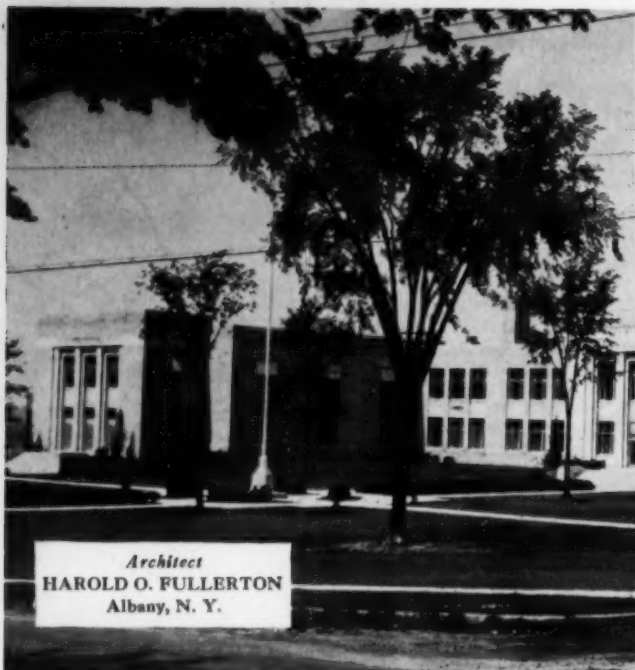
♦ Bristol, Conn. Under a new rule of the school board, high school teachers may accumulate leaves of absence up to 60 days, without loss of pay.

♦ Louisville, Ky. Thirty-one teachers were retired from schoolwork at the close of the school year in June. These teachers had reached the age of 70.

♦ Elmhurst, Ill. As a wartime measure, the school board of Dist. 46 has suspended for the duration of the emergency its rule prohibiting the employment of married women teachers. The board will continue the employment of teachers whose husbands are in the armed forces.

♦ Supt. Milton Potter, of Milwaukee, Wis., has warned the school board that a serious oversupply of teachers will confront the schools when the war ends and the teachers on leave return to their old positions. A report of the board of examiners showed that the number of leaves of absence has jumped from 61 in 1939-40, to 93 in 1940-41, and to 96 from September, 1941, up to the present date.

## Outstanding Equipment for an Unusually Fine School



Architect  
HAROLD O. FULLERTON  
Albany, N. Y.

This imposing new Central School at Pulaski, New York, is an outstanding example of the modern trend in education. In architectural beauty, quality of construction and completeness of equipment it ably fulfills its civic function: effective instruction. Completely serviced with "Standard" electric hourly supervised clock and Program Systems — also Fire Alarm Equipment. Outstanding equipment for an unusually fine building. Standard Equipment is designed by specialists for modern school installations. Literature on request.



### THE STANDARD ELECTRIC TIME COMPANY

81 LOGAN ST., SPRINGFIELD, MASS.

BRANCH OFFICES IN PRINCIPAL CITIES

#### NEW BOOKS

##### Procedures for School District Reorganization

By Harold D. Alford. Cloth, 165 pages. Price, \$2.10. Bureau of Publications, Teachers College, Columbia University, New York, N. Y.

This study which approaches the problem of rural district organization and control from the legal point of view, points to the thousands of districts which are too small to render adequate service and argues that larger units are necessary. The laws of the several states are quoted but the discussions and conclusions are mainly based on cases decided in the courts.

The litigation concerning the separation and consolidation of districts is strangely enough not so frequently based on better service to the children but usually on questions of taxation, debts, and control of financial matters. The author concludes: "A close study of the appeal cases indicates that district reorganization is not a simple process of legislative enactment. In the first place, the process of formulating a law is a difficult task, and therefore should be framed by a competent lawyer, with the educators determining the content. In the second place, those who direct the redistricting should follow the law with extreme care. These two factors, if heeded, should greatly reduce the confusion in district reorganization."

The author, in his summary, says rather sharply: "It seems that much of the confusion in school district reorganization is due to the legal ignorance or the carelessness of school superintendents. It is suggested, therefore, that those charged with the responsibility of advising school boards or directing redistricting be required to become versed in the intricacies of school law."

The study suggests five general principles for school district reorganization: (1) Educational planning should be developed on the basis of unbiased objective studies of the areas involved. (2) Intelligent public opinion must be built to reach the various levels of interest and knowledge, and to permit citizens to act intelligently. (3) Democratic control should be developed to translate effectively the will of the majority. (4) Legal provisions are necessary with respect to the content and form of organization procedures so that smooth operation may result. (5) Allocation of support should be arranged to inaugurate educationally efficient school district reorganization.

##### Progress and Educational Perspective

By Edgar W. Knight. Cloth, 148 pages. Price, \$1.50. The Macmillan Co., New York, N. Y.

Brilliantly written, this lecture traces the growth of education in the United States as an influence upon

individual and social progress. While he recognizes the changes which have caused improvements in numerous aspects of educational organization, curriculums, methods, the writer is not so certain that these represent what he considers to be true progress. The materialistic spirit of America and its consequent ill effects upon economic, social, and political life are in part due to education. There is need for a return to spiritual values, and to a re-evaluation of cultural values. In its final recommendations, the lecture is disappointingly vague and general. It would have been definitely helpful if the author had essayed a demand for a return to the spiritual, moral, and religious foundations and the solid philosophy to which the founding fathers held and upon which the constitution and the beginnings of our educational system were based.

##### Applying Good English

By Canby, Opdycke and Gillum. Cloth, 448 pages. Illustrated, \$1.48. The Macmillan Co., New York, N. Y.

Assuming that pupils in the ninth grade need a review in the principles of composition and grammar and motivation sufficient to arouse their interest, these authors have begun with a summary of the etiquette of social and business conversation and letter writing. The exercises are based upon home, school, play, business, and social situations. All the illustrations are reproductions of photographs of young people engaged in various activities, each one of the pictures having a definite relation to the text.

Perhaps there is too much attention given to social activities, since the book is for the ninth grade. One of the examples of student's compositions and one book suggested in the bibliography should not have been included.

##### New Practical Chemistry

By Black and Conant. Cloth, 695 pages, illustrated. \$2.20. The Macmillan Co., New York, N. Y.

Since the science of chemistry is constantly progressing, the best of standard textbooks must be revised from time to time to include the latest developments. Changes in this new edition of a popular book include revising the sections on the structure of the atom. Modern applications of chemistry to industry and daily life are stressed and a section on the measuring of gases has been included.

The book is well supplied with modern teaching aids such as diagrams, drawings, pictures, questions and problems, reviews, and suggestions for extra work.

##### Number Readiness Series

By Harold G. Campbell, F. L. Wren, and W. J. Osburn. D. C. Heath & Co., Boston, Mass.

The present four books, in a series which is to include six volumes, are: "Discovering Numbers" for the third

grade; "Number Experiences" for the fourth grade; "Number Activities" for grade five; and "Exploring Numbers" for grade six. The books assume that the readiness and interest are essential to successful study of numbers and computational processes. The authors urge that unusual care has been taken to introduce the work on the order of natural difficulty, to develop concepts and skills in the use of numbers and number relations, and to provide a wide variety of socially and personally valuable information. Illustrations have definite teaching value, and tests and reteaching materials are demonstrably effective.

##### Let's Write Good Letters

By Sherman Perry. Cloth, 184 pages. \$1. The American Rolling Mill Co., Middletown, Ohio.

This is a book that tells everybody how to write business letters that will carry the writer's message right into the mind of the reader. After reading *Let's Write Good Letters* anyone who has intelligence enough to write, or to transcribe, a letter will understand in a practical way such features of writing as unity, emphasis, directness, imagination, and avoidance of superfluous words.

While the book has been prepared for the personnel of the American Rolling Mill Co., like its predecessor issued in 1924, it will be in demand in other organizations and in classrooms.

##### A Home for Sandy

By Romney Gay. Cloth, 119 pages. Price, 72 cents. D. C. Heath & Co., Boston, Mass.

A primer.

##### The Metal Crafts

By William H. Johnson and Louis V. Newkirk. Paper, vii-152 pages. Price, \$1.20. The Macmillan Co., New York, N. Y.

This basal text is the outcome of 10 years' development of metalworking courses in the Chicago junior high schools. In addition to informative chapters on the industrial methods of working iron, copper, and other metals, the book provides rather complete details of the principles of bench metal, foundry, sheet metal, art metal and spinning, as these are done in the school shop. Practical projects are used to make clear the processes, materials, and accessories as described.

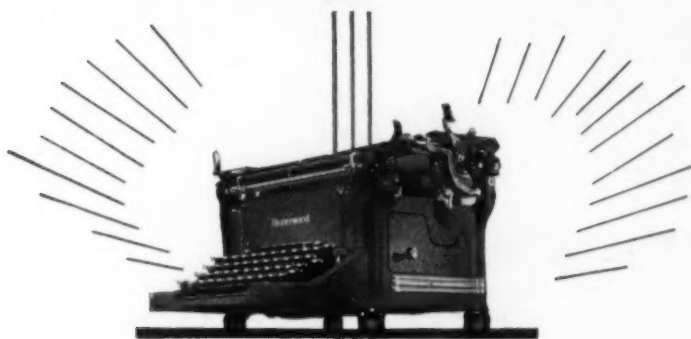
##### The River Book

By John V. Beatty. Cloth, 256 pages. Price, 90 cents. Beckley-Cardy Co., Chicago, Ill.

Two boys in a leisurely trip down the Fox River (Wis.) study the interesting plant and animal life, the soil and rocks, the bridges and dams, and the industrial and other human uses of the stream. The book is suitable for free reading in grades five and six.

# 1942

How Long  
will your Typewriters Last?



How long will the war last? How long will my typewriters last?...these are the questions many school executives are asking.

Here is one thing you can be sure about. Your typewriters and office training machines will last longer if you take advantage of the Underwood Maintenance Service Plan!

Your Underwood Representative will be glad to explain how the plan assures peak performance, economy and longer life for your

typewriters and office machines. His knowledge, experience and ability to do a thorough job will help keep your typewriters, adding machines and accounting machines on the job. This is a valuable contribution in helping you train the business personnel so essential to our country's war effort.

There's an Underwood Service Representative eager to serve you! Call your local Underwood Elliott Fisher office.

**Underwood Elliott Fisher**

*Helps Speed the Nation's Victory!*

*Service in 407 Cities in the U. S. A. and 26 Cities in Canada*

*Invest in America!  
Buy War Savings Bonds and Stamps*

*Underwood Elliott Fisher Company  
One Park Ave., N. Y. Nationwide Service*

# 194?



*"Emil's a Skeptic—He Don't Believe That  
Floor-San is Safe on All Types of Floors"*

But Emil will be convinced when he uses Floor-San, for he'll know that now he need use only *one product*—with safety—for every floor that formerly required a special cleanser.

**SAFE ON RUBBER, ASPHALT TILE, ETC.**

Now, you can use a single scrub compound for rubber tile, asphalt tile, linoleum, terrazzo, wood, or any other flooring, and feel absolutely sure that the floor will remain unharmed. You get thorough cleansing too, for Floor-San has powerful detergent properties which quickly remove dirt.

**APPROVED BY FLOORING MANUFACTURERS**

Floor-San is the first scrub compound to receive the approval of the Rubber Flooring Manufacturers As-

sociation. It is also endorsed by asphalt tile manufacturers. Such approval means that Floor-San is mild... won't discolor flooring... won't run colors. Thus you are assured that Floor-San is safe for use on the most sensitive flooring material.

**SAVES TIME FOR YOU AND JANITOR**

By using Floor-San, you need buy only one product and your buying is done. Floor-San also saves janitors' time for it ends use of several cleansers.

So begin now to use Floor-San for cleaning all your floors, and save time, labor, and expensive flooring.

**FLOOR-SAN**  
LIQUID SCRUB COMPOUND

HUNTINGTON LABORATORIES, Inc.  
HUNTINGTON INDIANA

## School Administration News

♦ Abilene, Kans. New courses to be offered in the high school in September are aviation, and radio work.

♦ Iron River, Mich. A short course in first aid will be offered in the ninth grade next year. The course will cover nine weeks' work.

♦ Decatur, Ill. The school board has discontinued the midyear promotion plan, to begin with the year 1943. Existing midyear classes will be allowed to continue until they have worked through the school system.

♦ The Indiana State Board of Education has approved a wartime measure, permitting high school students to earn three credits during the summer school sessions. The new plan will permit students in the upper one third of their classes to graduate in three winter and three summer terms.

♦ Edwardsville, Ill. The school board has passed a rule, requiring three years of physical education and a fourth year optional, for seniors graduating from the high school.

♦ El Reno, Okla. The school board has completed arrangements for high school and junior college summer schools on a tuition basis. The sessions will offer accelerated courses to provide man power for labor supply and for enlistment in the armed forces.

♦ Bristol, Conn. The school board has approved a revised school program offering a course in aviation science. Senior students in the college preparatory, general, and commercial divisions will be permitted to take the course as an elective.

♦ Gary, Ind. Military training will be introduced in the four high schools, beginning next September. The program calls for compulsory military drill for boys in the sophomore and third and fourth years. Boys who will be enrolled as juniors and seniors will be permitted to take the training on a voluntary basis.

♦ Lexington, Ky. Special six months' courses in radio technical work are being offered to student recruits of the U. S. Army Signal Corps who will be assigned later to active duty. One hundred and twenty young men from near-by towns have enrolled for the course.

♦ Houston, Tex. The National Defense Training Program has been stepped up from a nine-month to a twelve-month basis. A number of instructors have been added to the faculty to teach the defense subjects.

♦ Leominster, Mass. The school board has approved a suggestion of Supt. William B. Appleton, calling for a year's trial of the one-session plan in the junior high schools, beginning with September. Under the plan, school sessions will open at 8:15 a.m. and close at 2 p.m. each school day. Advantages claimed for the plan are that children do better work in the morning; that it keeps children off the streets during the noon hour; that it allows them more time for outdoor play and exercise; that it allows an extra help period after school hours; and that the children can go home earlier in the fall and winter months.

♦ Moberly, Mo. The school board has taken steps to complete the six-four-four system, beginning with the school year 1942-43. All pupils will spend six years in the elementary schools, four years in the junior high school, and four years in the senior high school. The first of the elementary school children to be affected are the present six graders, who will enter the junior high school next September.

♦ Holdrege, Neb. The school board has voted to introduce an aviation course in the high school next September. The course will consist mainly of groundwork, involving the sciences underlying flying.

### PUBLICATIONS OF INTEREST TO SCHOOL-BUSINESS EXECUTIVES

**Annual Financial and Statistical Report of the Board of Education of the City of New York, N. Y., for 1940-41**

Cloth, 149 pages. Published by the board of education in New York City.

The report contains (1) the financial and physical data, together with statistical statements, (2) a detailed tabular section showing financial and physical data of school property, and (3) a real estate section showing the realty transactions and school-building improvements during the year.

**Advance Statistics of State School Systems, 1939-40**

By David T. Blose. 4 pages. Published by U. S. Office of Education, Washington, D. C.

This is a summary of facts of population, enrollments, graduates, attendance, salaries of teachers, current expenses of schools, number of school buildings, and income from taxation.

**Handbook of Civilian Protection**

Edited by Louis L. Snyder. Cloth, 184 pages. Price, \$1.75. McGraw-Hill Book Co., New York, N. Y.

Contains the essential information for safeguarding civilian population against air raids, fires, incendiary bombs, high explosives, and poison gas. Suggests methods of giving first aid, of conserving critical materials, and of planning adequate diets.

**Better Cities**

By Charles S. Ascher. Paper, 22 pages. National Resources Planning Board, Washington, D. C.

A flexible program for postwar urban development, which seeks to establish a new relation between city and country that will enrich the possibilities of education and recreation.

**Federal Specifications**

The Procurement Division of the Federal Specifications Executive Committee has recently issued new standard specifications for Chip Soap (PS-566a); for Grit Cake Soap (PS-571a); for Ordinary Bar Soap (PS-591a); for Liquid Toilet Soap (PS-618a); for Milled Toilet Soap (PS-621a); and for Gummed Tape for mending, reinforcing, etc. (UU-T-101b).

Copies are available at five cents each, from the Government Printing Office, Washington, D. C.

**School-Bus Patrols**

Paper, 6 pages. American Automobile Association, Washington, D. C.

This pamphlet recommends student participation in the safe operation of school buses. It describes duties to be performed by front bus and rear bus patrol members.

**List of Inspected Electrical Equipment, 1942**

Paper, 492 pages. Published by the Underwriters' Laboratories, Inc., 161 Sixth Ave., New York, N. Y.

## SUPERINTENDENT DEFENDS HIS ADMINISTRATION

The school system of St. Louis, Mo., is in a turmoil. Dr. Homer W. Anderson, who came from Omaha, Neb., two years ago, to assume the superintendency of the St. Louis schools, is under fire. His resignation has been requested by the board of education.

In defense of his record, covering the past two years, Superintendent Anderson points to the following achievements:

The organization of a curriculum department for the scientific study of the revision of the curriculum of the schools.

The establishment of a personnel department to select new teachers and to manage the promotion of teachers.

The establishment of a guidance division for vocational and educational guidance.

The reorganization of the instructional department on a functional basis, with three assistant superintendents in charge of the elementary schools, the high schools, and vocational education.

A new plan for the selection of textbooks.

The preparation of an analysis of the elementary schools.

The expansion of vocational education with emphasis on war needs.

The gearing of the schools into the war needs and the active handling of government war projects.

Dr. Anderson reports six important projects under way, including the in-service training of teachers, the reconstruction of the salary schedule, the reorganization of the high school program, and the enlargement of the vocational education program.

It is Dr. Anderson's belief and recommendation that the unit system of administration should be adopted under which a superintendent becomes the chief executive officer of the schools with power to select teachers and administrative employees. Under the plan, which was originally recognized as needed in the Strayer report, all basic decisions of policy are made by the board and not by committees.

Numerous civic and educational organizations are supporting the superintendent.

## BOARDS OF EDUCATION

Two labor members of the Kenosha, Wis., board of education have been removed from office upon order of Judge A. C. Hoppmann, sitting in the local circuit court. The offending members, who were elected by a small plurality at an election in 1941 in which forty per cent of the electors voted, were pledged in advance to act only with the advice and consent of the Union League of Voters, the vehicle in Kenosha for political action by union labor. A jury which heard the case decided that the men were guilty of violation of their oath of office and had failed to act to the best of their ability. The judge in ruling on the verdict, declared the offices vacant and pointed out that while board members may seek advice from others, they are the officials of all the people, and they must take the responsibility of being the officials of all the people. Unless the cases are appealed, the offices will remain vacant until the next election.

Sedro-Woolley, Wash. The board of education which is composed of thirteen members, has a clerk, Mr. J. G. Green, who has completed twenty-five years as a member. He has served as president of the Washington State School Directors' Association. Mr. John Guddall is serving his twenty-first year as a member of the board.

Relations of Minneapolis, Minn., teachers and board of education were strained to the limit during the closing weeks of the school year in May and June, because of an order of the board cancelling the pay of teachers from June 6 to 12. Several of the teachers' organizations voted to strike in protest, but the school year was closed on June 5 without untoward action on the part of the staff. Strong protests also were filed by the teachers and by several women's organizations against the discharge of 62 surplus teachers who are to be eliminated on the basis of seniority in service. It was urged that the board's action, made necessary by the acute financial state of the school district, should be reversed and teachers who suffer from physical disabilities should be dropped.

# TIME IS SHORT

## Building Schools in "Boom Town"

Defense areas—military and industrial—are creating hundreds of new "Boom Towns." Military personnel, office and factory workers, and their families fill suburban and metropolitan areas to overflowing. New schools, new buildings are under way. "Time is Short" and the selection of equipment for these buildings is important.

HOLTZER-CABOT clock systems provide modern, uniform time for many of these buildings. The rugged design of each part insures continued maintenance-free operation, and their simplicity insures ease of installation.

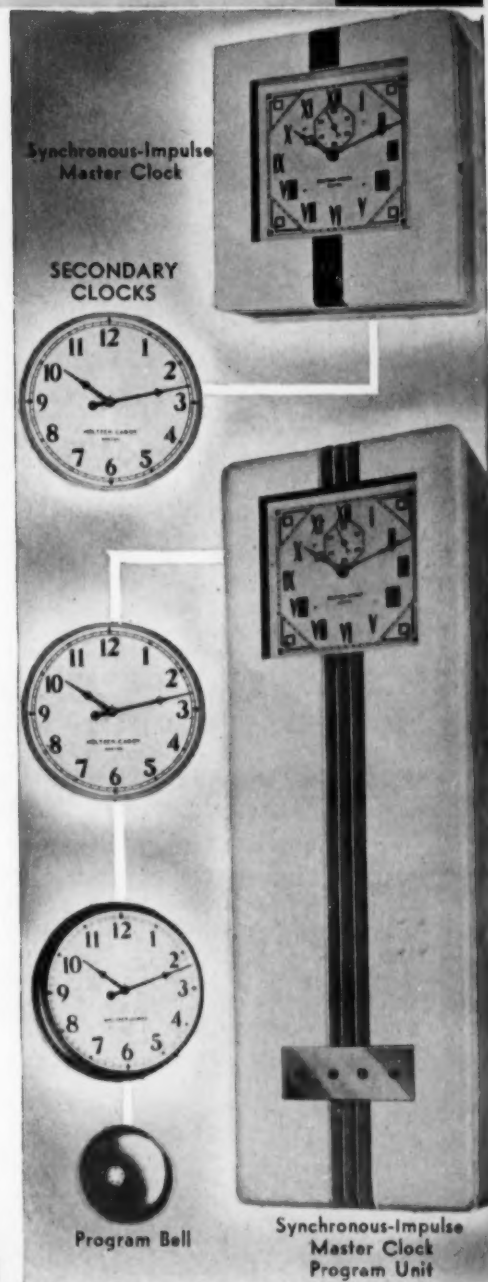
### TYPE SMIS SYNCHRONOUS IMPULSE MASTER CLOCK SYSTEM

A reliable time keeping system consisting of a synchronous master clock and hourly supervised secondary clocks. The master clock insures split second accuracy. The minute impulse, hourly supervised secondary clocks insure uniform and accurate time throughout the buildings.

### TYPE SMP SYNCHRONOUS IN PROGRAM MASTER SYSTEMS

A modern dismissal program control system and master clock combining all of the necessary features for the operation and hourly supervision of secondary clocks, and, in addition, the automatic operation of dismissal signals. Automatic transfer from one schedule to another when required for the weekly program may be provided for and the signals may be silenced automatically for Sundays and other periods when required.

### FOR FURTHER INFORMATION



Write Department ASB-6 for Bulletin 170 SMP-1 — Complete information on Modern Clock Systems.

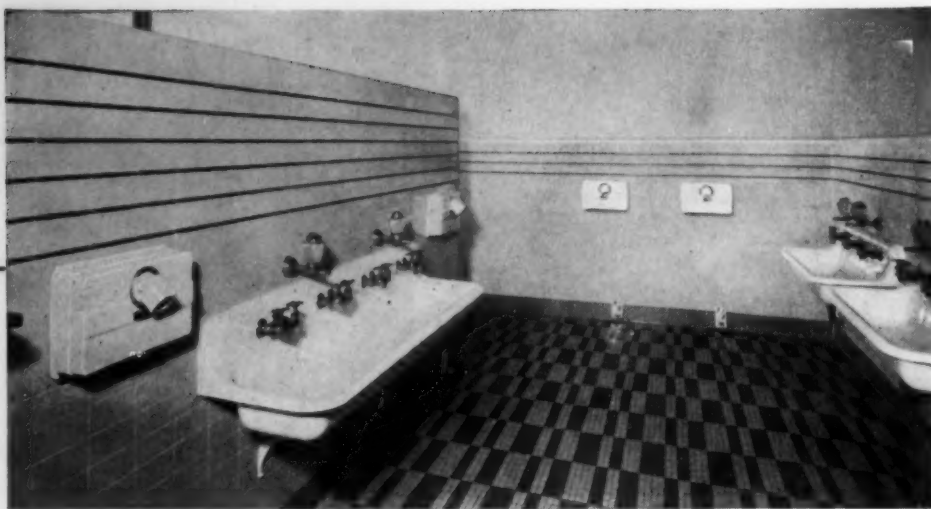
We also manufacture complete fire alarm, telephone systems, and laboratory panels.

HOME OFFICE & FACTORY  
125 AMORY STREET  
BOSTON, MASS.  
OFFICES IN ALL  
PRINCIPAL CITIES



## The Holtzer-Cabot Electric Company

ONE RESPONSIBILITY — SATISFACTORY OPERATION OF COMPLETE SYSTEMS



(Washroom of South Gate Jr. High School, Los Angeles, equipped with Model "SR-W" SANI-DRI)

## ONE Health-Protecting SANI-DRI Conserves

### OVER 24 TONS OF SHIPPING WEIGHT

To equal the *minimum* of two million drying operations for which every SANI-DRI is built, *over 24 tons* of paper towels would be necessary. SANI-DRI electrical hand and hair driers are aiding America's Health-Defense and the conservation of the material resources and labor of the country. In schools and buildings of all kinds SANI-DRI is serving the nation in this great emergency with a high degree of sanitation and aid-to-cleanliness. SANI-DRI provides a *constantly dependable, sanitary drying service*—and with it washrooms are *automatically kept cleaner*. Send for illustrated literature.

*Dependable Since 1897*

**THE CHICAGO HARDWARE FOUNDRY COMPANY**  
Sani-Dri Division 742 School Street North Chicago, Ill

*Also Producers of Restaurant, Cafeteria and Lunchroom Equipment*



#### DEFENSE WORK

♦ The University of Illinois is cooperating this summer with the Civil Aeronautics Administration and the Illinois State Defense Council in giving direction to the preflight training program for the schools of Illinois. An intensive two weeks' course, open to both men and women, on methods and materials to be used in high school classes in the science of aeronautics, is offered at Urbana by the College of Education. By attending either of these courses, June 22 to July 3, and July 20 to July 31, teachers of mathematics, physics, general science, and shop courses may prepare themselves to participate in this needed program.

An eight-week demonstration course in aeronautics for high school seniors is offered in the University High School at Urbana. This course is given five days a week, beginning June 8 and ending July 31.

In addition to these courses, attention is being given to curriculum revision, designed to develop

among the pupils in Illinois high schools a greater understanding of war and postwar problems.

♦ Newton, Mass. Supt. Julius E. Warren has announced plans for a summer school in the city, to include courses for youth preparing for enlistment in the air corps. The courses will cover six weeks, beginning July 6 and ending August 14, and a tuition fee of \$12 will be required. The courses, as planned, will include preflight training, mathematics, physics, aeronautics, clerical preparation, mechanical drawing and drafting, machine-shop work, and welding. Each student will be permitted to take two courses, for a two-hour period daily in each subject.

♦ Tuscaloosa, Ala. Defense training classes in automobile repair, airplane engines, ship carpentry, radio, Red Cross, and secretarial work are being conducted on a continuous day and night schedule. High school students in both white and colored schools are eligible to attend.

♦ Carmel, Calif. The school board has approved a procedure for use in case of air-raid

attacks, which has been tested and found satisfactory. The students of the high school provide the messenger service for the community's civilian defense. They also are prepared to serve as fire spotters and as members of the auxiliary fire-fighting force.

♦ Teachers and schools throughout the eastern seaboard states acted as registrars for A books under the gas rationing program.

♦ Milwaukee, Wis. The facilities of the Boys' Trade and Technical High School, in addition to those of the Vocational School, are being used this summer for an expanded war-production training program.

The program, which is an extension of the war trades instruction work of the past winter, aims to train NYA boys and girls and older persons now unemployed. Machine shop, foundry, patternmaking, electricity, gas and arc welding, and Diesel-engine mechanics will be taught in two shifts—9 a.m. to 3 p.m., and 3 to 9 p.m., six days a week at the vocational school, and 9 a.m. to 3 p.m. at the technical high school.

It is expected that supplementary classes will be offered in the evening for employed workers. In addition to the day subjects, the course will offer shop mathematics, blueprint reading, and metallurgy.

#### DR. HAROLD G. CAMPBELL DIES



Dr. Harold G. Campbell, city superintendent of schools in New York City, died in a New York City hospital on June 17, after a year's illness. He was 58 years old.

Dr. Campbell's entire career was spent in the public schools of New York City. Beginning as a classroom teacher, he reached the highest educational post in the city, the superintendent of the world's largest public school system, coming up through the ranks and serving under virtually every type of teaching license.

After graduation from Boys' High School, he attended the old Brooklyn Training School for Teachers, from which he was graduated in 1902. He received his B.A. degree from the Polytechnic Institute, and later received the M.A. degree from New York University. He was honored with the LL.D. degree from Fordham University.

Dr. Campbell was elected an associate superintendent in 1924, the youngest ever to hold that rank. In 1929, he was named deputy superintendent, serving as aid to Dr. William J. O'Shea. Following Dr. O'Shea's retirement in 1934, Dr. Campbell was elected to the superintendency for a six-year term, and in 1940 was re-elected.

Dr. Campbell turned the schools into a vast laboratory for educational experiments, involving sound films, new type report cards, extension classes, and schools for underprivileged children. He encouraged the trend away from mass instruction of students to individual instruction. He opposed pressure groups and approved the ouster of teachers who sought to spread totalitarian propaganda. He was active in a number of professional and civic organizations, and was for many years a trustee of the Long Island City Savings Bank.

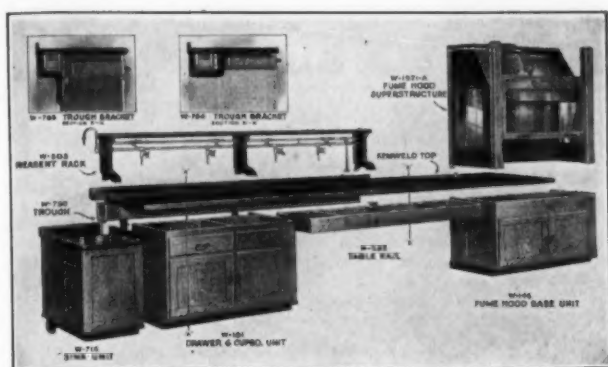
#### PERSONAL NEWS

♦ MR. FREDERICK LEIGHTON, former superintendent of schools at Oswego, N. Y., died at his home on June 2, following a heart attack.

Mr. Leighton was head of the Oswego school system for more than 19 years and principal of the high school for 10 years prior to his appointment as superintendent in 1920. He had a leading role in the development of the city's modern school system and was responsible for the construction of the modern high school building. Music was introduced, evening schools were established, home economics and industrial arts were extended to the junior and senior high schools, dramatic arts was introduced, and a full-time librarian was employed. He designed and placed on the market a complete set of record cards for the schools. He compiled and published Regents' Review Books in arithmetic and plane geometry.

The Oswego Palladium-Times devoted a three-column editorial to an evaluation of Mr. Leighton's 30 years' contribution to the city school system.

♦ JOHN K. NORTON has been appointed Director of the Division of Organization and Administration of Education at Teachers College, Columbia University, New York City. Mr. Norton entered upon his new duties on July 1. He succeeds Dr. George D. Strayer.



Note how Kewaunee Standard Units are Assembled

## Matched Units — Built in Quantity Now Lower the Cost of LABORATORY FURNITURE!

Based on Kewaunee's many years of experience and close cooperation with educators, we have designed a complete series of units which, when assembled, provide maximum efficiency at lowest cost. We call this new and more economical method of production — "the Kewaunee Cut-Cost Plan." All designs are made in wood or metal, but because of restrictions on the use of steel, we are unable to furnish metal furniture for the duration. Write for the Kewaunee Catalog.



C. G. Campbell, President

5002 S. Center Street, Adrian, Michigan  
Eastern Branch: 220 E. 42nd St., New York, N. Y.  
Mid-West Office: 1208 Madison St., Evanston, Ill.  
Representatives in Principal Cities



Half-erased chalk marks on your blackboards confuse your pupils and strain their eyes. Prevent this danger. Keep your chalkboards clean and black by the easy \*HYGIEIA Method — by using HYGIEIA Dustless Chalk and the HYGIEIA Chalkboard Cleaner.

Use HYGIEIA Dustless Chalk for a highly legible mark that erases quickly and cleanly. Made of pure levigated chalk, it actually helps to clean your boards.

Use the HYGIEIA Chalkboard Cleaner to keep your boards thoroughly clean. For class-time erasures, its cellular latex cleaning surface is fast and effective. For end-of-the-day cleaning, its lamb-skin surface removes all chalk traces and leaves your boards clean and black.

WRITE TODAY to Dept. A-7 for the new BLACKBOARD BULLETIN, a booklet on modern blackboard care.



CERTIFIED FOR PURITY — Look for the Certified Seal on the complete line of Old Faithful Grade A Color Materials.

\*Reg. U. S. Pat. Off.



**THE AMERICAN CRAYON COMPANY**  
1706 HAYES AVENUE, SANDUSKY, OHIO  
NEW YORK CHICAGO SAN FRANCISCO DALLAS



## IRWIN, TOO, HAS JOINED The ALL-OUT WAR EFFORT

But

We can still make reasonably prompt shipment of the following items:

AUDITORIUM CHAIRS  
MOVABLE CHAIR DESKS  
(Large Size)

TABLET ARM CHAIRS  
STRAIGHT CHAIRS

(For kindergarten and students of all ages)

All are built to the usual high standard of IRWIN design and quality. May we suggest that you make sure of having the equipment required when you need it by placing your order as soon as possible? Complete information will be furnished promptly upon request.



TERRITORIAL DISTRIBUTORS  
THROUGHOUT U. S. A.



## How To Solve Today's Seating Problems—

—as to price—durability—availability—Brunswick folding chairs meet all of these requirements. They're reasonably priced . . . they're made of tough Virginia Oak that will withstand years of hard usage. Brunswick production schedules are such that you can be assured of reasonably prompt delivery.

Ask today for literature about the entire Brunswick line . . . giving prices and other necessary information. There's no obligation, of course.

**BRUNSWICK SEATING CORP.**  
Willis O. Jones, President  
LAWRENCEVILLE VIRGINIA

Seat 13" wide, 14½" deep

LABORATORY, LIBRARY  
AND VOCATIONAL FURNITURE  
CAFETERIA EQUIPMENT  
SODA FOUNTAINS

**WALRUS**  
MANUFACTURING COMPANY  
DECATUR ILLINOIS

**ARTISTS and ENGRAVERS**

• The Premier symbol of quality is your guarantee for perfection in photo-engraving. In addition to Premier Quality, creative suggestions and technical information are a part of the efficient Premier Service. Order your next photo-engravings from

**PREMIER ENGRAVING CO.**  
818 W. WINNEBAGO ST.  
MILWAUKEE, WISCONSIN

## WANT TO BUY OF COURSE, WE SELL, TOO!

**SCHOOL DESKS** — Number, make, grade, etc.  
**STEEL LOCKERS** — Give sizes, make, number, etc.  
**OFFICE FURNITURE, OFFICE EQUIPMENT, BUSINESS MACHINES**, give serial numbers, general descriptions.  
**SAFES** — Cabinet, Underwriters' Label.  
**VISIBLE EQUIPMENT**, such as Kardex, Acme, etc. — Note number of drawers, size of cards, etc.  
**ADDRESSOGRAPH EQUIPMENT, FRAMES, TRAYS, CABINETS, MACHINES**, etc.

Gives best prices "as is," f.o.b. point of purchase.  
May I hear from you?

Phone, wire or write

**J. E. MURPHEY** 1800 DYER CHestnut 9000  
ST. LOUIS COUNTY, MISSOURI

Oldest exclusive used office equipment dealer west of Mississippi  
Keep This Card for Future Reference

"Never say fail . . . AMERICA!"

## FIRST AIDS to Summer Scrubbing:

## Finnell CLEANSERS



*Finola*, the fast-acting scouring powder for heavy duty scrubbing . . . *Solarbrite*, a neutral liquid soap made of pure vegetable oils . . . *Sanax*, the liquid soap that leaves a semi-wax slip-proof finish . . . and *Finnell Rubber Cleaner*. For literature or consultation, write

**FINNELL SYSTEM, INC.**

807 EAST STREET

ELKHART, INDIANA

A new text and reference for classes in Home Building and Homemaking

## ACCURATE HOME ESTIMATING

By Thomas A. Roberts, Instructor, Masonry Trades and Building Construction, Milwaukee Vocational School; and Ruth A. Roberts, Designer, Milwaukee, Wisconsin

Here is all the reliable information on construction methods and methods of figuring construction costs that the student of carpentry, building trades, architectural drawing, etc., needs in convenient, simplified form. Includes a glossary of over 1600 trade terms. \$3.00

**THE BRUCE PUBLISHING COMPANY**  
707 Montgomery Bldg. Milwaukee, Wis.

**SCHERMERHORN TEACHERS' AGENCY** Est. 1855

**CHARLES W. MULFORD, Prop.**

366 Fifth Ave., between 34th and 35th Sts., NEW YORK  
Branch Office: 1836 Euclid Avenue, Cleveland, Ohio

A Superior Agency for Superior People  
We Register Only Reliable Candidates

Services Free to School Officials

Member National Association of Teachers' Agencies

## SPECIAL JOURNAL BINDER

Save copies of the AMERICAN SCHOOL BOARD JOURNAL in attractive green binder embossed with publication name. Holds two volumes — opens flat — easily handled.

A bargain at \$2.00, plus carriage

**AMERICAN SCHOOL BOARD JOURNAL**  
Dept. A7 Milwaukee, Wis.



### THE YALE & TOWNE MFG. CO.

205 Henry St., Stamford, Conn.

Please send me your new free booklet, "Locker Lock Problems Can Be Solved!"

Name .....

Address .....

City ..... State .....

School .....

... PUBLISHED BY THE YALE & TOWNE MFG. CO., IN COOPERATION WITH THE SCHOOL EXECUTIVES OF AMERICA



## The Key to Locker Lock Problems is Yours for the asking

AT LAST! A MANUAL FOR SCHOOL EXECUTIVES THAT SUMS UP YEARS OF EXPERIENCE

WITH LOCK BUYING, FINANCING AND CONTROL

Here, in one concise booklet, is a complete analysis of your locker lock problems and how to solve them. See how hundreds of schools have simplified their bookkeeping, improved their locker rooms, avoided refund difficulties and lowered replacement costs!

Five distinct ways to plan lock purchases are described. These alone are worth the few minutes it may take you to tear off and mail the coupon above.

There's no obligation, and it may lead to a new trouble-free efficiency throughout your entire school year! But act now, while the matter is still fresh in your mind!

TRADE **YALE** MARK

THE YALE & TOWNE MANUFACTURING CO.

STAMFORD, CONNECTICUT, U. S. A.

### School Law

#### School-District Property

Where a salesman secured a written order for school supplies, signed by two of the three directors of a school district, in violation of a statute, but such an order was not given at a regular, special, or adjourned meeting of the directors, and a third director did not ratify the order, the school district was not bound by the order to pay the prices listed therein. *Smith-Hurd* stats. c. 122, § 119. — *Sebastian v. School Directors of Dist. No. 17, Marion County*, 40 Northwestern reporter 2d 565, 313 App. 652, Ill.

A school district or a board of education thereof cannot be held liable, in the absence of a statute creating liability, for injuries or damages caused by its officers "agents," or employees' negligence in the performance of their duties, as they exercise "public or governmental function" in furthering the purposes of education. — *Daskiewicz v. Board of Education of City of Detroit*, 3 Northwestern reporter 2d 71, Mich.

#### Teachers

In a California action for the determination of the truth of charges against a teacher, and if true, sufficiency of charges as grounds for the teacher's dismissal, a charge of a mental condition unfitting a teacher to instruct or associate with children was sufficient to support a judgment that the teacher could be dismissed where the charge was sustained by the evidence. *Calif. school code*, § 5.654. — *Board of Education of San Francisco Unified School Dist. v. Mulcahy*, 123 Pacific reporter 2d 114, Calif. App.

The provision of a teacher's tenure statute that no permanent teacher shall be "removed from office" without written charges and a hearing is not limited to dismissal or discharge of the teacher, but applies also to demotion. *Act No. 100 of 1922, § 48, as amended by the act No. 58 of 1936.* — *State ex rel. McNeal v. Avoyelles*

*Parish School Board*, 7 Southern reporter 2d 165, La.

The evidence that a principal failed to conform to accepted and recognized standards as to the supervision of instruction, failed to hold a proper faculty meeting, failed to give proper direction to the teachers, and failed properly to co-ordinate courses of study from year to year, sustained a charge of willful and persistent negligence, so as to authorize his dismissal. *24 P.S. of Pa.*, § 1126. — *Swick v. School Dist. of Borough of Tarentum*, 25 Atlantic reporter 2d 314, 344 Pa. 197.

Under a provision of the teacher's tenure act of Louisiana, that no permanent teacher shall be "removed from office" without written charges and a hearing, a high school principal could not legally be demoted to the position of teacher, with a reduction of salary, without such charges and hearing, and on an illegal demotion the principal was entitled to reinstatement and to back salary. *Act No. 100 of 1922, § 48, as amended by Act No. 58 of 1936.* — *State ex rel. McNeal v. Avoyelles Parish School Board*, 7 Southern reporter 2d 165, La.

In the exercise of its power to discharge teachers under a Washington state statute, it is not necessary for a school board to hold a formal hearing or to give the teacher notice of its contemplated action and an opportunity to be heard, and the teacher has a remedy by appeal to and hearing *de novo* before the county superintendent, but the right of appeal is subject to a statutory requirement that it be exercised within thirty days. *Rem. revised statutes*, §§ 4776, 5064, 5065. — *Blunt v. School Dist. No. 35, Klickitat County*, 121 Pacific reporter 2d 367, Wash.

#### School Lands and Funds

A "school" is an institution consisting of a teacher and pupils, irrespective of age, gathered together for instruction in any branch of learning, the arts or the sciences. — *Weisse v. Board of Education of City of New York*, 32 N. Y. Sup. 2d 258.

### HOW LINCOLN OBTAINED A SCHOOL ADMINISTRATION BUILDING

(Concluded from page 45)

tion Building. On the first floor are the board of education room and the offices of the superintendent, assistant superintendent, secretary, health department, and the operation, maintenance, and purchasing departments. On the second floor are supervisory offices, the teachers' professional library, the parent-teacher association offices, the Lincoln teachers' association office, conference rooms for committees of the superintendent's round table, and an assembly room seating approximately 300. On the third floor are the home-economics and industrial-arts offices, and the classrooms and offices connected with the extension work of the schools. Adequate quarters for stores are provided in the basement and on the first floor. The maintenance shops, formerly housed in the same buildings as the administrative offices, are now housed in other school buildings.

The community as a whole profited by these transfers of property. In fact, each of the respective owners of the transferred property, as well as the new owners, benefited in proportion to the true value of their respective properties. Best of all, the board of education has a very satisfactory and dignified administration building and has substantially cut the operating cost of the school plant.

## Professional Directory

### BONSACK & PEARCE INC.

WILL MAKE SURVEY OF YOUR NEEDS

Complete Architectural & Engineering  
Services by School Specialists

408 Olive Street St. Louis, Mo.

### Christensen and Christensen

Architects

104 Thomas Building

Dallas Texas

A. C. Eschweiler, F.A.I.A. C. F. Eschweiler, A.I.A.  
A. C. Eschweiler, Jr., A.I.A. T. L. Eschweiler, A.I.A.

### ESCHWEILER and ESCHWEILER

ARCHITECTS

720 East Mason St., Milwaukee, Wisconsin

### MARTIN J. GEISE Architect

I make a Specialty of Designing School Buildings in  
Illinois, Iowa, and Missouri. Over 20 years Experience.

QUINCY, ILL. KEOKUK, IOWA

AND

109 N. 8th Street State Central Savings Bank  
Building, 6th and Main

### Joseph C. Goddeyne, A.B., B.S.A.E.

ARCHITECT

Bay City Bank Building  
Bay City, Michigan

Architectural Engineering — Mechanical Services.  
'NOT A DISSATISFIED CLIENT'

### WARREN S. HOLMES COMPANY

Architects and Engineers

Specializing in School and  
College Buildings.

2200 Olds Tower Lansing, Michigan

### WM. B. ITTNER, INC.

Superior Architectural and  
Engineering Service Rendered

408 Board of Education Building, St. Louis, Mo.

### GILBERT A. JOHNSON

Architect for Rockford Board of Educa-  
tion 1921-1940

Designed School Buildings costing  
\$3,500,000 in 1939-1940

Rockford. Illinois

Wm. R. McCoy, A.I.A. D. Clarence Wilson

### McCOY & WILSON

ARCHITECTS

Modern School Buildings  
A Specialty

Rooms 313-314-315 First Nat. Bank Bldg.  
MT. VERNON ILLINOIS

### McGUIRE & SHOOK

ARCHITECTS

Specialists in Design of Educational Buildings  
Consulting Service to School Officials

INDIANAPOLIS, INDIANA

### Perkins, Wheeler & Will

ARCHITECTS

Merchandise Mart, Room 2204 Chicago, Ill.

### C. Godfrey Poggi

ARCHITECT

Elizabeth, New Jersey

### SCHAEFFER & HOOTON

Architect & Designer

7th Floor Peoples Bank Building

BLOOMINGTON, ILLINOIS

### WM. G. HERBST

Architect

1249 N. Franklin Place Milwaukee, Wis.

### THE WARTIME CONTRIBUTIONS OF INDUSTRIAL ARTS IN GENERAL SECONDARY EDUCATION

(Concluded from page 15)

The stress of war calls us strenuously to accomplishment in action. The impetus and dignity which this period gives to the pragmatic importance of materials, machinery, and labor should be recognized and utilized by all who are interested in the training of American boys and girls;

this is the time to make pertinent changes in our curriculum. We must always remember that we are teaching students who must live in an insecure present and prepare for an unpredictable future. If the teacher of industrial arts can assist them toward an increasingly intelligent control of any environment in which they may find themselves, then he will have made a wartime contribution which will be productive long after the guns have ceased.

### THE SCHOOL-BOARD MEMBER LOOKS AT STATISTICS — VII

(Concluded from page 42)

the score of 250 in the upper graph was found to be equivalent to a Standard Score of 1.86. Carrying this line down into the lower graph, it is found that a Standard Score of 1.86 is equivalent to a score of 71.7. In other words, a score of 250 on Test I is equivalent to a score of 71.7 on Test II. Similarly, the score 150 on the upper graph had a Standard Score value of -1.59; carried down to the lower graph, this is found to correspond to a score of 26.8. Thus, a score of 150 on Test I is equivalent to a score of 26.8 on Test II.

### The T Score

A slight modification of the procedures so far described is sometimes used to translate scores to "T Scores." Below the Standard Score scale of each graph will be noted another scale, for T Scores. This scale has the special features that the Mean is always 50, and the value of Sigma is 10. In other words, when a T Score equivalent is given, one can see immediately whether it corresponds to a positive or negative Standard Score [that is, whether it is above or below the Mean of the original distribution] by simply noting if it is above or below 50. In addition, one can determine also at once how far above or below the mean it will be, in terms of Sigmas; thus, 40 is 1 Sigma below the Mean [50 minus 10], 70 is 2 Sigmas above the Mean [50 plus (2 times 10)], etc. This type of transformation is useful when it is desired to avoid the negative numbers of the Standard Scores, and when the tester is not sufficiently familiar with the significance of the scores of any particular test used to justify translating scores from other distributions to the scale of that test.

### NEWS OF OFFICIALS

● LESTON P. FANEUF has been elected president of the board of education at Buffalo, N. Y. He has been a member of the board for four years.

● MRS. THELMA MIFFLIN has been appointed secretary of the board and secretary to Supt. Kenneth McFarland, at Topeka, Kans.

Under a new plan of administration, E. E. SALLIE becomes assistant superintendent in charge of business affairs. Mrs. Mifflin will be responsible for the board's secretarial work.

● DR. C. C. HALL, vice-president of the board of education at Omaha, Neb., died in a hospital on May 22. He was elected to the board in 1936 and entered upon his second term in 1940.

● F. M. GREGG has been elected president of the board of education at Lincoln, Neb. Mrs. E. E. Angle was named vice-president.

● W. E. WRIGHT has been elected president of the school board at Fargo, N. Dak. WARD D. BRIGGS was named secretary.

● DR. BRYANT H. TREWYN, president of the board of education at Peoria, Ill., died suddenly on June 9, following a heart attack. Dr. Trewyn was head of the medical staff of St. Francis Hospital.

● MR. HOWARD A. HUNTER has been appointed principal of the Central High School at Peoria, Ill., to succeed J. H. Brewer, who has resigned.

● L. J. BOTLEMAN, of Ordway, Colo., has accepted the superintendency at Trinidad.

● SUPT. G. E. WATSON, of Wauwatosa, Wis., has been re-elected for a three-year term, with a substantial increase in salary.

● The board of education at Pelham, N. Y., has re-elected SUPT. JOSEPH C. BROWN for a term of five years, at an annual salary of \$12,000.

● WILLIAM A. MILLIS, Crawfordsville, Ind., widely known as an educator and textbook author, died May 26.

● JAMES B. McCANEY has been re-elected president of the Chicago board of education for his tenth one-year term.

# SHELDON

## Home Economics



### LABORATORY FURNITURE

**Plan Now  
Build Now!**

To be assured delivery of new equipment, immediate action should not be delayed. Formulate preliminary plans, budget estimates and specifications NOW and place your order IMMEDIATELY.

Sheldon Engineers will help you plan your laboratory and select the equipment which will efficiently and economically meet your requirements.

Write today—ask our engineer to call.

SHELDON manufactures a complete line of science laboratory, home economics, art and vocational furniture.

**E. H. SHELDON & CO.**  
717 NIMS STREET MUSKEGON, MICHIGAN

# WAR on WASTE!

## *In Times of Plenty Prepare for Days of Scarcity*

### "AMERICA IS THE MOST WASTEFUL NATION IN THE WORLD"

...probably because we have always lived in a land of plenty. Even now, in spite of our resources being used in the war effort, it is still a land of plenty of many things. But, the things that are plentiful today may be scarce tomorrow so we should conserve everything that we have.

### ARE YOUR DOLLARS BEING SABOTAGED?

There have been, and probably still are, thousands of floor maintenance dollars being wasted every day. Not malicious waste especially but waste through ignorance of proper use of materials. Take cleaning methods for example: it isn't always true that, "the more you use the better results you get." Nor, is it true that the "cheapest product" is the most economical. The wrong cleaning product can shorten the life of a floor. Effective and economical cleaning with a product such as Briten-All requires just the proper amount. In many cases just a little Briten-All will do a far better job. Proper cleaning procedure is just as important, too. It would be wise to check right now to see if your maintenance men are getting the best results without waste. DON'T LET THEM WASTE YOUR CLEANING DOLLARS.

### HERE'S IMPORTANT WASTE-SAVING INFORMATION

While you are checking with your maintenance men on the amount of cleaner they are using also ask about the amount of wax. Like your cleaning product, it isn't always true that, "the

more you use the better results you get." Thin coats of wax, properly applied, may get better results than a lot of wax piled on. The main thing to remember in the waxing of your floors is not to set up a rigid rule such as, "this floor must be waxed at a specified time." Some sections of the floor may not require waxing that often. Study traffic conditions and watch the wear on various areas of the floor. In other words, see if good results cannot be obtained with less material.

### OLD FLOORS CAN BE SAVED

This same conservation program should be followed in finishing your floors. New floors of all types, now more than ever before, should be protected with the proper kind of finish to insure long life. Old floors should not be neglected either. Many of them can be made to last for the duration by a good cleaning and possibly just one coat of seal. Investigate before arranging to use considerable quantities of material that now are becoming scarce.

### OUR PLEDGE—TO WAR ON WASTE

We of Vestal have pledged our patriotic support to the idea of "in times of plenty prepare for days of scarcity." Every Vestal representative is pledged to help floor maintenance material users get results through proper methods. We are waging our own war on wasting of floor maintenance dollars. If you have an idea that some of your dollars are being wasted through excessive use of materials, or ignorance of proper maintenance methods, call in a Vestal man.

**VESTAL CHEMICAL LABORATORIES, INC. ST. LOUIS  
NEW YORK**

## NEW SUPPLIES AND EQUIPMENT

Production, Service, and Sales News for School Buyers

### WOOD CABINETS

Designed to meet the government's restrictions as to critical metals for the duration are the storage-wardrobe and combination style cabinets trade named "Patriot Wood Cabinets." The cabinets are standard size 36 in. wide by 78 in. high by 18 in. deep, panel construction of Masonite on heavy hardwood frames. Masonite being impervious to moisture will not be apt to warp or twist. All are finished to give a steel appearance. All Steel Equipment Co., Aurora, Ill.

For brief reference use SBJ-712

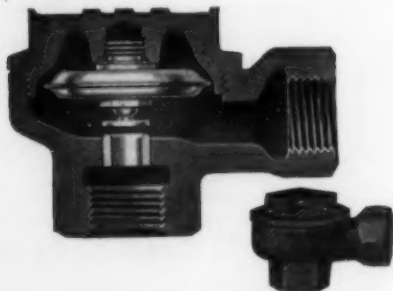
### VALVES AND TRAPS IN CAST IRON

"Old Ironsides" is the trade name of a wartime valve and trap conforming to the simplification program of the War Production Board. Brass and other metals are conserved by the use of iron bodies and bonnets in natural finish for painting after installation eliminating nickel and other platings. Valves are limited to two sizes— $\frac{3}{4}$  in. and 1 in., both in angle body with wheel handle, traps to three sizes— $\frac{1}{2}$  in. for 200 sq. ft.;  $\frac{3}{4}$  in. for 400 sq. ft.;  $\frac{1}{2}$  in. for 700 sq. ft. Both are designed for connection to radiators with a right- and left-hand nipple, a practice resorted to because of important saving. Warren Webster Co., 17th & Federal Sts., Camden, N. J.

For brief reference use SBJ-713

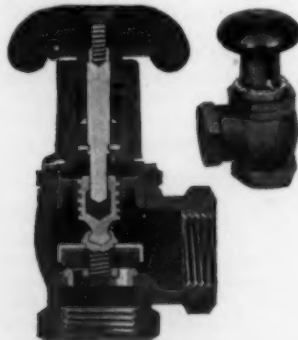
### VAPOR AND VACUUM HEATING SPECIALTIES

"Victory Line" is the designation for a group of vapor and vacuum heating specialties, manufactured by C. A. Dunham Company. In this new line, cast-iron bodies replace brass as formerly used by the manufacturer. The new Victory thermostatic radiator trap and "packless" radiator valve are illustrated.



Dunham "Victory" Trap.

The trap, available in  $\frac{1}{2}$ -in. and  $\frac{3}{4}$ -in. sizes, angle body only, consists of two principal parts, a cast-iron cover containing the fluid-filled thermostatic disk. Connections are left-hand tapped inlet and right-hand outlet. Delivered painted gray enamel. The thermostatic elements are interchangeable in covers without gauges. The



Dunham "Victory" Valve.

cover and disk assemblies are interchangeable with former standard traps.

The valve is of the spring-packed type, known to the trade as "packless." The body and bonnet

are cast iron, the handle is of nonbreakable, heat-resisting composition. The valve is quick acting, with less than one turn of the handle. It is made in angle pattern only, in  $\frac{3}{4}$ -in. and 1-in. sizes. To meet the government's wartime specifications, they have tapped right-hand inlet and left-hand outlet. Delivered painted gray enamel. Other specialties in the line are float and thermostatic traps, closed float traps, return traps, strainers, unit heaters, and pumps. C. A. Dunham Company, 450 East Ohio St., Chicago.

For brief reference use SBJ-714.

### SAFETY CHART

A safety chart based on an analysis of outstanding courses of study in safety from the U. S. Bureau of the Census, the National Safety Council, and records of state highway department and insurance companies is available to teachers. This chart, made up of colored pictures, showing how accidents occur and how they may be avoided, will stimulate an interest in safety in the home, school, and community and first aid among elementary and high school students. Complete details, accompanied by a teacher's manual with questions and suggestions suitable for discussion, may be obtained free by writing to the publishers, A. J. Nystrom & Company, 3235 Elston Avenue, Chicago, Ill.

For brief reference use SBJ-715

### MODERN LIGHTING FOR SCHOOLS

This is the title of a ten-page illustrated booklet just published which describes "Tontine" a pyroxylin impregnated washable window shade. With emphasis on conservation of eyesight through control of natural light, the booklet describes how "Tontine" shades keep glare out and let light in. Sections are devoted to the manufacturing, formulation, and economy involved. Copies may be secured by writing "Fabrikoid" Div. Tontine Sales, E. I. du Pont de Nemours & Co., Inc., Newburgh, N. Y.

For brief reference use SBJ-716

### PORTABLE DEODORANT DISPENSER

A portable dispenser for Germotex, a tested deodorant and disinfectant is now being marketed under the trade name "Mistolator." Mistolator dispenses the deodorant in vapor form, counter-



New "Mistolator."

acting irritation caused by dry air and incidentally serving as a humidifier. The atomizing mechanism is made of copper and brass throughout, and assembled in a chromium-plated inner container and dome. Pioneer Mfg. Co., Cleveland, Ohio.

For brief reference use SBJ-711

### BELL-HOWELL FILM CATALOG

Bell & Howell Co. have issued a valuable catalog supplement, listing over 200 films for instructional use, mostly relating to the war effort.

The films include war reports from the several battle fronts, films on Inter-American affairs, films on civilian protection, films on war production and industrial defense training, first aid, and aviation. A considerable number of films in the fields of science, home economics, and aviation are offered for general instructional purposes. A number of recreational films are also included.

Copies may be obtained, without cost, from Bell & Howell Co., 1801 Larchmont Ave., Chicago, Ill.

For brief reference use SBJ-719.

### STEEL UNIT HEATERS

C. A. Dunham Co. announces the production of a new series of steel unit heaters named "Victory Line."



Dunham Cabinet Unit Heater.

The units conserve critical metals and are available in a variety of models and sizes for horizontal and vertical discharge, for use in cabinets, etc.

The heating elements consist of steel tubes, welded to steel headers. All parts of the units



Dunham Ceiling Unit Heater.

coming in contact with steam are approximately the same thickness as standard steel pipe. Technical data is available for school authorities.

Requests may be addressed to C. A. Dunham Co., 450 East Ohio St., Chicago, Ill.

For brief reference use SBJ-718.

### TOOL STAND

Lyon Metal Products offer a new series of tool stands, designed to be useful in school shops.



New Lyon Tool Stands.

The stands are offered with one, two, or three drawers, fitted with flat keylocks.

The stands are illustrated and described in the new Lyon Shop Equipment Catalog No. 331, which is available, without cost, to school authorities.

Copies may be had from Lyon Metal Products, Inc., 3130 Clark St., Aurora, Ill.

For brief reference use SBJ-717.

# NEW SUPPLIES AND EQUIPMENT

## LATHE OPERATING INSTRUCTIONS

Useful information on the care and operation of metalworking lathes is contained in the following list of books, charts, and films.

"How to Run a Lathe"—a 128-page book, LB41, covers such subjects as turning, facing, drilling, boring, and reaming.

"How to Cut Screw Threads"—the setting of a lathe for various pitches of screw threads; setting cutter bits, formulas, multiple and metric threads.

"Grinding Cutter Bits"—the application of various cutter bits, methods of grinding, correct angles for grinding various types of tools and for machining various metals.

"South Bend Machine Shop Course Book"—contains 12 practical projects for lathe apprentice training.

"Shop Wall Charts"—a series of 40 wall charts and blueprints showing drill sizes, pitch diameters, correct use of calipers, application of lathe tools, etc.

"The Lathe" and "Plain Turning"—two 16mm. sound films show what a lathe is for, how to operate it, and the performance of basic lathe operations. Showing time for both approximately 40 minutes. Complete information can be obtained from South Bend Lathe Works, South Bend, Ind.

For brief reference use SBJ-721.

## INEXPENSIVE BUBBLE FONT

A specially designed cantonment type drinking fountain, trade named R 146, has been added to the Rundle and Spence Mfg. Co., line of bubble fountains.

This drinking fountain, a nonpedestal type, can be securely fastened with three bolts to outside



The R & S War Economy Bubbler.

or inside walls, and connected with supply and waste pipes without extra fittings.

The bubbler is attached to a white enameled cast-iron waste bowl and raised high enough to prevent contact with waste water in case of a plugged pipe or back-up sewer. Rundle and Spence Mfg. Co., 445 N. 4th St., Milwaukee, Wis.

For brief reference use SBJ-722.

## NEW STANDARDS FOR CHALK

The National Bureau of Standards, Washington, D. C., has announced new revised standards for crayons, chalk, modeling clay, etc. The changes, which became effective on May 15, will not affect any manufacturer adversely because they represent in fact the specifications now being followed by the manufacturers.

## AFTER THE MEETING

### In Wisconsin

Peter and John were kept after class and told to write the name of their birthplace fifty times. Peter went to work with a will; John started to cry after some 10 minutes of writing.

"It isn't fair, teacher. Pete was born in Elroy, and I was born in Black River Falls."

## SCHOOL DAYS! SCHOOL DAYS!

A New Version of an Old School Song, As Sung by the Bay View High School Alumni Association

*School days, school days,  
How they've changed our school days!  
One night the air wardens come to class,  
Next one it's first aid—and then comes gas.  
Sugar is rationed, bonds are sold,  
Draftees and grandpas are enrolled,  
The students are left out in the cold,  
Since we were a couple of kids.*

### Concealment

"And what is your father's occupation?" asked the new teacher.

"I—I can't tell you!" said Tommy.

"But you must tell me."

"Oh, please, Father wouldn't like me to."

"But I must know. It's a question I ask of every child."

"Well, he's—he's a bearded lady in a side-show!"

### Knew His "Ring"

The teacher asked each pupil to draw a ring. They all did so except Tommy, who drew a square.

"Tommy, I told you to draw a ring and you have drawn a square," chided the teacher.

"Mine is a boxing ring," replied Tommy grandly.—Teachers World.

### Modern Definition

Teacher—"Can you tell me what a waffle is?"  
Mary—"Yes'm. It's a pancake with a nonskid tread."

### Last Resort

"What shall we do with ourselves tonight?" asked one student of another.

The Other: "We'll toss for it. If it's heads, we'll go to the pictures, and if it's tails we'll call on the girls."

First Student: "It might stand on edge!"

The Other: "All right. If it does we'll study for the exams."—Kentucky Mercury.

## ADVERTISERS' INDEX

American Chain & Cable Company	5	Medart Mfg. Company, Fred	4
American Crayon Company	61	Monroe Calculating Mach. Co., Inc.	53
American Seating Company	4th cover	Murdock Mfg. & Supply Co., The	4
Armstrong Cork Company	6	Murphey, J. E.	62
Beckley-Cardy Company	68	National School Supplies and Equipment Ass'n.	8
Bell and Howell	9	Nesbitt, Inc., John J.	10
Bruce Publishing Company	62	Norcor Manufacturing Company	6
Brunswick Seating Corporation	62	Peabody Seating Company	52
Burroughs Adding Machine Co.	12	Peterson & Co., Leonard	9
Chicago Hardware Foundry Co.	60	Premier Engraving Company	62
Colgate-Palmolive-Peet Co.	51	Professional Directory	64
Continental Car-Na-Var Corp.	4	Racine Tool & Mach. Company	68
Crane Company	3rd cover	Rundle-Spence Mfg. Co.	2
Delta Mrg. Company	49	Schermerhorn Teachers Agency	62
Draper Shade Company, Luther O.	2	Sheldon & Company, E. H.	65
Finnell System, Inc.	62	Sloan Valve Company	1
Goodyear Tire & Rubber Co., The	3	Squires Inkwell Company	68
Hamilton Manufacturing Co.	55	Standard Electric Time Co.	56
Holden Patent Book Cover Co.	54	Taylor Company, Halsey W.	6
Holmes Projector Company	68	Underwood Elliott Fisher Co.	57
Holtzer-Cabot Electric Co.	59	Vallen, Inc.	9
Huntington Laboratories, Inc.	58	Vestal Chemical Company	65
Irwin Seating Company	61	Vonnegut Hardware Co.	7
Johns-Manville Corp.	50	Walrus Mfg. Company	62
Kewaunee Mfg. Company	61	Wood Conversion Company	2
Maple Flooring Manufacturers	2nd cover	Yale and Towne Mfg.	63

## RACINE UTILITY SAWS



RACINE saws are receiving first call for vocational training. These modern metal cutting machines are used extensively in industry and in all the branches of the armed service including navy yards, arsenals, air bases, etc.

Because of this general popularity and the wide acceptance in industry, RACINE Utility Saws are used in school shops everywhere. Designed to handle school shop cutting in an efficient and safe manner this saw will give dependable, trouble-free service. Write today for information on these moderately priced, efficient metal cutting saws. If engaged in national defense training, your priority rating will assure reasonable delivery.

### RACINE TOOL & MACHINE CO.

1760-1 State St.

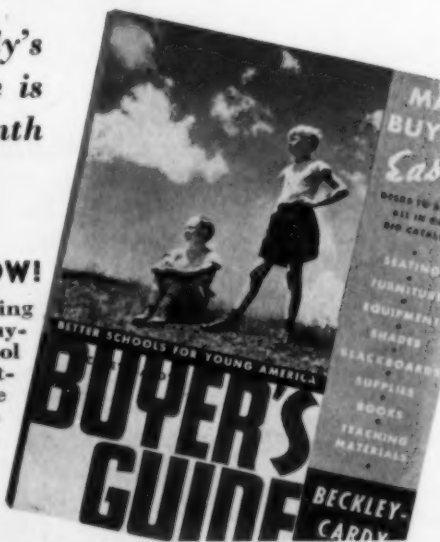
Racine, Wis., U. S. A.

## To Help You Buy in a Changing Market

★  
*Beckley - Cardy's  
Buyer's Guide is  
issued a month  
earlier.*

★  
**IT'S READY NOW!**

A postcard will bring you this complete buying guide of all school needs free. Ask for catalog No. 74, and see the many new things this year has to offer in dependable merchandise at usual Beckley-Cardy savings.



**BECKLEY-CARDY** 1632 Indiana Ave., Chicago  
**MANUFACTURERS**



## HOLMES PROJECTORS now serving the Nation 100%

Our entire output of projectors is being utilized by the U. S. Government for training, educational and recreational purposes; hence we regret our inability to furnish new projectors for commercial or institutional use at this time.

It is our endeavor to take care of any requests for parts necessary to keep present Holmes equipment in good running order as promptly as possible.

### HOLMES PROJECTOR COMPANY

Manufacturers of 16mm and 35mm Sound-on-Film  
Projectors for over 25 years to Dealers and Users

1812 ORCHARD STREET

CHICAGO

## DEFENSE

AGAINST EXCESSIVE COSTS

## SQUIRES' INKWELLS



Bakelite Boston  
Inkwell No. 60



Bakelite Boston  
Inkwell No. 59

*Quality Bakelite*

*Low Initial Cost*

*Practically Unbreakable*

*Less Ink Evaporation*

### SQUIRES INKWELL CO.

351 FREEPORT ROAD

PITTSBURGH, PA.